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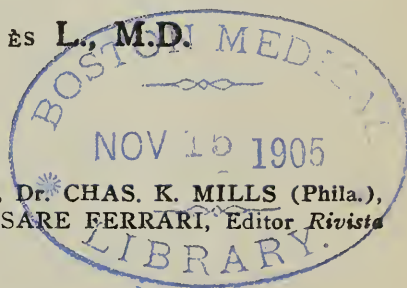
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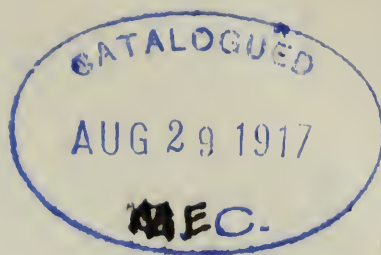
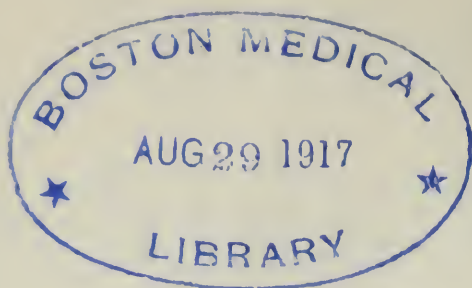
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CONTRIBUTORS OF ORIGINAL PAPERS.

FAREZ, DR. PAUL, Paris.	MEUNIER, DR. P., Paris.
GEMELLI, DR. E., Milan, Italy.	MEUNIER, DR. R., Paris.
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CONTRIBUTORS OF ORIGINAL PAPERS.

BIANCONE, DR. GIOVANNI,	Rome, Italy.
PERUSINI, DR. G.,	Rome, Italy.
MINGAZZINI, PROFESSOR G.,	TIMPANO, DR. PIETRO, Italy.

ILLUSTRATIONS.

Serial sections of the cerebro-spinal nervous system in a case of fa-	milial heredo - spinal atrophy (Friedreich's type).
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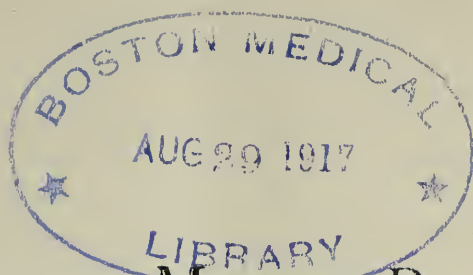
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No. 1.

ON THE INTRACELLULAR NETWORK OF GOLGI OF THE NERVOUS ELEMENTS OF THE SPINAL CORD IN THE ADULT SUPERIOR VERTEBRATE.

By DR. SERGE SOUKHANOFF, *Privat-docent*, University of Moscow.

(From the psychiatric laboratory of the Moscow University.)

The intracellular apparatus of Golgi represents a special network within the cellular bodies of the nervous elements, projecting off-shoots into the protoplasmic processes but not communicating with the pericellular spaces. The general configuration of this apparatus and the peculiarities of the distribution of its constituent parts depend on the cellular form, on the manner of its dendritic directions, on the age of the animal, etc.

Experiments show that the intracellular apparatus of Golgi is best demonstrated in the nervous elements of the spinal ganglia, especially in young animals. It is very much more difficult to demonstrate the existence of this apparatus in the spinal nervous cells of adult vertebrate. I have succeeded in demonstrating the *intracellular network of Golgi in the nervous elements of the spinal cord of adult rabbits* and I shall try to present the results of my

researches in this direction. I shall give a somewhat detailed account of the technique I used, as it is of importance in this work.

I used the spinal cords of adult rabbits killed by chloroforming. The spinal cord was taken out of the spinal canal as rapidly as was possible. A longitudinal incision was then made in the spinal cord on one of its sides. Sometimes two such incisions were made—one passing in front of the central canal and the other behind it. Transverse sections were then made, at a distance of some 0.5 centimetres from one another and even at smaller distances. The small pieces thus obtained were used for the research. I wish to remark that the lumbar region was used preferably.

The pieces thus obtained were put into *Veratti's* fluid in which they remained during a period of from 24 to 25 days. The pieces were taken out of this fluid and put into a mixture composed as follows:

3 parts of a 5 per cent. solution of bichromate of potash;

1 part of a 5 per cent. solution of sulphate of copper.

The pieces of spinal cord should remain in this solution approximately during a period of two and one-half days. They are then put into a 2 per cent. solution of nitrate of silver, in which they remain from one to three days. The pieces of the spinal cord are then fixed upon small pieces of wood or cork by means of celloidin. For this purpose the pieces of the spinal cord are treated with alcohol during a period of from 15 to 20 minutes and with a mixture of alcohol and ether during a period of from 10 to 15 minutes and with liquid celloidin during a period of from 10 to 20 minutes.

The sections were collected in strong alcohol and, for the purpose of washing out the celloidin, were treated for a short while in ether and then again in alcohol. The clearing process was done with guiacol and then with oil of turpentine. The sections were then put on the slide, the excess of turpentine was extracted and the sections were covered with balsam. Cover-glasses were not used so as to keep the preparation in perfect shape. I wish to remark that I made a hasty microscopic examination of every section before it was finally sealed. The sections were carried directly from the blade of the razor to the slide.

Under the microscope, the most noticeable thing is the *characteristic appearance of the intracellular apparatus of Golgi*. This apparatus has the *appearance of a net* of winding and irregular threads twisted into various picturesque figures. The stain was perfect in some parts of the network and imperfect in others. The intracellular network of Golgi can be found in large and small as well as in the medium sized cells of the spinal cord. The general

outlines of this network are various, depending on the form of the cellular body and on the number of dendrites that spring from it. These conditions are easily seen in the accompanying figures. A careful examination of the intracellular apparatus shows the truth of Golgi's claim that *between the external limits of the intracellular network and the periphery of the cellular body there exists a protoplasmic layer independent of the network apparatus*. This can be seen in Fig. 2, a, b, c and in Fig. 3, a, c. The existence of this free layer of protoplasmic formation clearly indicates that the network apparatus of Golgi belongs to the category of intracellular formations. Further, a study of the sections shows beyond doubt that the *intracellular network of Golgi is disposed around the nucleus and appears as a perinuclear apparatus*. Golgi himself has called attention to this fact and it can be verified in Fig. 1, d, e, in Fig. 2, d and in Fig. 3, a, b.

In his excellent description of the intracellular apparatus Golgi remarks that *this apparatus gives off characteristic processes (rejetons) directed into the dendrites*. I had occasion to verify this statement while examining the sections. In the accompanying illustrations these processes are clearly seen: They start off from the intracellular network and are directed into the protoplasmic substance of the dendrites (fig. 1, a, b, d, e; fig. 2, a, d, e; fig. 3, a, b). Sometimes the extent of these processes is quite marked (fig. 3, a). At times, two or three of these processes are directed into the dendrite (fig. 1, a, b, c; fig. 2, a; fig. 3, a, b).

As for the structure of the network itself, its most striking feature is the irregularity and sinuosity of its fibres, promiscuously intertwining regardless of their different thicknesses. These fibres are also characterized by irregularity of contour.

Before considering the rôle of the intracellular network of Golgi it is useful to remark that it has been seen in most varied nervous elements. The greater part of the researches in this direction was made by Golgi. Veratti has made numerous investigations regarding this question and Golgi himself quotes his works on the subject. My own researches on the subject date from 1900, when both Professor Golgi and Dr. Veratti put their laboratory at my disposal and enabled me to learn their methods of investigation. Among the others who have succeeded in observing the intracellular apparatus are: A. E. Smyrnoff (Tomsk) and Javorovsky (Krakoff).

Speaking in general terms it may be said that the external appearance of the intracellular network differs according to the nervous element in which it is observed. Thus, its appearance in the nervous cells of the spinal ganglia and in analogous structures

(Gassirian ganglion, for instance) is quite different from that found in the nervous cells of the spinal cord and the cerebral cortex. In the nervous cells of the spinal ganglia the intracellular network appears like a closed sac,—without any processes (*rejetons*). In the nervous cells of the spinal cord and of the cerebral cortex, on the contrary, that is to say, in the cells that have dendritic processes, the intracellular network is also endowed with processes that run into the dendritic growths. There does not seem to be any connection between the intracellular network and the pericellular space. This is most evident from the fact that the intracellular network of Golgi is wrapped around, so to speak, in a free protoplasmic layer.

Considering the described appearance of the intracellular network of Golgi it is reasonable to suppose that it has no connection with the association elements of the cells—the fibrils of Berthe and Apathy; nor has the endocellular apparatus of Donaggio anything in common with the endocellular network of Golgi. Apparently the network has more in common with the intracellular spaces (Holmgren, Studnick, Bochenek and Donaggio) and may be analogous to what Nelis calls “*état spirémateux*.” It is, indeed, difficult to define the rôle of the intracellular network. It can only be said for the present that it serves as an index to the peculiar structure of the nervous protoplasmic substance. It may be remarked that besides this perinuclear network Golgi also discovered another structure: In the peripheral zone of the cortical nervous cells he found a characteristic fibrillary apparatus that comes in contact with the periphery of the protoplasmic zone described in connection with the intracellular apparatus.

Finally, it may be useful to remark that a structure similar to the perinuclear apparatus has been discovered in the cells of the various animal glands. The description of these structures may be found in the writings of Pensa, Negri and Gemelli.

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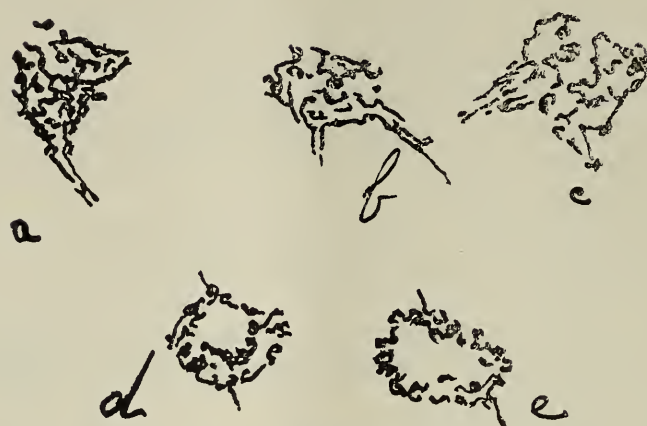


Fig. 1.

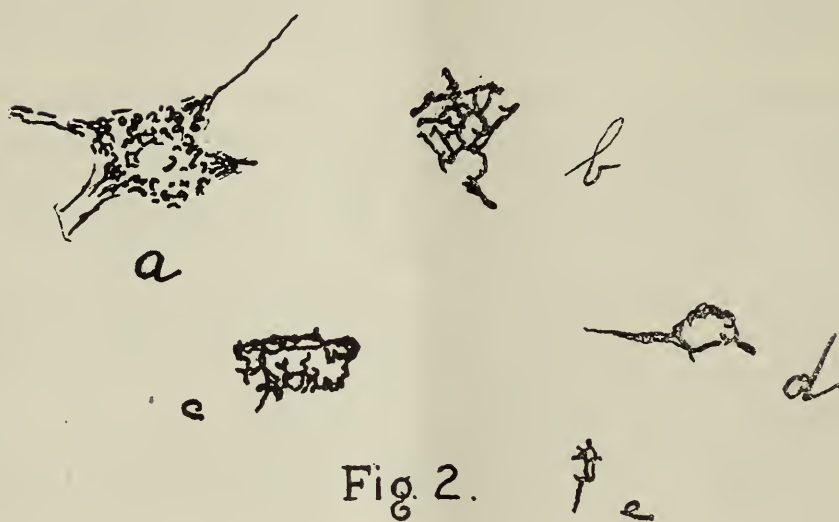


Fig. 2.



Fig. 3.

SUICIDAL AND HOMICIDAL ACTS. THEIR CLINICAL ASPECTS AND MEDICO- LEGAL SIGNIFICANCE.

By LOUISE G. ROBINOVITCH, B. ès L. (Paris), M. D.

Member New York Academy of Medicine, Foreign Associate Member
Medico-Psychological Society, Paris.

INTRODUCTORY REMARKS.

Of all the destructive deeds executed by human beings those of suicide and homicide are, of course, the most interesting ethically and scientifically. The psychiatric clinician is often called on to give his expert opinion regarding the responsibility or non-responsibility of subjects guilty of the act of suicide or homicide. To be able to clearly ascertain the responsibility or non-responsibility for the perpetration of these deeds it is necessary for us to fully comprehend the various motives that prompt one to their commission. Indeed, a clear understanding of the question under consideration becomes absolutely necessary if one is to realize the true result of this class of inquiry, viz., the establishment of a line of action that will serve to protect the individual and defend society.

If the act of suicide or homicide is committed by an individual subject to a gross psychiatric disturbance, the recognition of the disease is not difficult, and the clinician and judge can easily decide on the non-responsibility of the subject in question. There are, however, many subtle varieties of mental aberration that may lead to the commission of the acts of violence in question and the nature of which cannot be properly understood by the judge unless he is thoroughly familiar with the essential traits of the psychiatric forms of mental manifestations.

The attempt is made herein, therefore, to give a concise representation of the various mental aberrations that may lead to the commission of suicide or homicide. For the purpose of brevity, this representation will be almost schematic,—giving a mere skeleton, so to speak, of the various psychoses and mental deviations that may lead to suicidal or homicidal acts.

The forms of psychiatric diseases that may lead an individual to the commission of murder or suicide are many and various. The lower forms of these diseases, such as idiocy and imbecility, are not difficult of recognition and will be considered here superficially. The succeeding grades of mental diseases in the psychiatric scale are far more complex and varied, however, and will, therefore, be considered in detail, so far as space permits.

The vast class of the degenerate furnishes an infinite variety of psychoses that may be characterized by suicidal or homicidal acts. Thus, the idiot may commit these acts of violence, although he is oblivious to his surroundings; the imbecile commits these acts because he does not appreciate the value of life. The simple melancholiac commits suicide because he has lost interest in life. The melancholiac with delusional manifestations and the subject afflicted with maniacal excitation may be prompted by delusions or hallucinations to commit suicide or homicide. Among the other deliriums of the degenerate that are apt to lead the subject to the commission of suicide or homicide are:—the various systematized and unsystematized deliriums, and the obsessions and impulses in their multiple forms. The class of cases that come under the heading of the degenerate is vast and varied and can here be broadly considered only in its general outlines. One of the odd forms of disease that must be considered in this class is what the French call *folie à deux*. In this form of disease the sane person may commit an act of violence through the instigation of the insane person. One of the most dangerous forms of insanity with homicidal tendencies that is apt to come to legal notice is that designated by the term *persecuté-persecuteur*.

Another dangerous as well as incurable form of insanity apt to come to the magistrate's notice is chronic delusional insanity of systematic evolution. This disease is grouped by the French School outside the class of the degenerates, while the Germans view this subject in a complicated manner. For the purposes of this paper, however, detailed controversies will not be analyzed.

There are a number of subjects who commit murder while in full possession of consciousness and whom the science of psychiatry stamps as individuals irresponsible. These are the degenerate with criminal tendencies.

Among the organic psychoses that are apt to come to the magistrate's notice progressive general paralysis stands out preeminent.

There is a class of diseases the nature of which is quite obscure and that are designated, for this reason, as functional diseases. Among the diseases of this class epilepsy and hysteria frequently come to the judge's notice. Indeed, most atrocious and inexpli-

cable crimes have been committed by subjects under the influence of post-epileptic delirium.

Psychoses caused by intoxications are responsible for a large number of suicidal and homicidal acts. The alcoholic intoxications are far the more frequent causes of these psychoses. Morphine, cocaine and other extraneous poisoning will also be considered here.

There are two more forms of mental aberration that must not be omitted. One of these forms is of ancient date and may be called *perpetual paranoia*.^{*} The individuals subject to this mental aberration commit wholesale murder, in the broad daylight, in sight of their fellow beings, while in full possession of consciousness and fully appreciating the horror of their murderous deeds. These murders are generally committed under the influence of a collective psyche transmitted from generation to generation, designated above as perpetual paranoia and that is due to an ignorant interpretation of well-known historic and existing facts.

The newest form of mental aberration that is said to be responsible for the commission of murder is described by its advocates as a conscious commission of murder due to suggestion during hypnotic sleep.

From the above bare outlines of the various diseases with homicidal and suicidal tendencies, it is seen that a great duty devolves on the clinician and jurist in the matter of understanding the various natures of the psychoses and of ministering justice to the perpetrators of suicide and homicide afflicted with these diseases. I shall, therefore, cite below a few typical cases of these psychoses, illustrating some medico-legal facts with which every medical jurist should be familiar.

It has above been remarked that typical cases of idiocy and imbecility do not present great difficulty in the diagnosis and I shall therefore, omit citing cases illustrative of these diseases. There are certain cases of mental impairment, however, that cannot be designated by the accepted terms of classification. They are irregular, and do not correspond to the typical forms of psychoses. Thus, a case may not come under the heading of imbecility properly speaking, yet present innate mental debility to a dangerous degree. The case below cited somewhat illustrates such a condition.

^{*} I am indebted to Dr. Majano, of Rome, Italy for the suggestion of this term.

MENTAL DEGENERACIES.

Case I.—*Hereditary Mental Degeneracy.—Homicidal and Suicidal Acts Prompted by Obsessions, Impulses and Mental Debility.*

E. C., 18 years of age, entered the Admission Bureau, Ste-Anne Asylum, Paris, June 22, 1897. His father was subject to neuralgia and was unbalanced mentally; he often had spells of profound mental depression and remained morose for days, without addressing a word to anybody. He was in constant fear of death. The patient's mother was neurotic and highly irritable. One of his brothers suffers from mental debility.

Our patient showed a marked unevenness of temperament from childhood. From a condition of childish gaiety he passed into one of profound depression almost without any stage of transition and without cause. He was markedly scrupulous in his habits and spent about an hour dressing himself mornings. He brushed out carefully every crease in his clothes, and made numerous inspections of himself in the mirror. At table, he showed a similar hesitation in things; he often wiped his glass several times before using it.

Within the last few years he exhibited some other peculiarities. Thus, whenever he saw a person whose face did not please him he felt impelled to strike that person. He reasoned with himself by saying that the impulse was wrong, but the desire to strike was quite strong. At times he felt impelled to strike persons without even this cause being present. For no reason whatever, he wished to shoot himself on several occasions; he did not actually do so because he did not wish to cause his parents grief. In 1897, finding himself without any employment, he determined to go to America. He did not know anybody here and knew nothing of the preparations necessary for the trip. Thinking he might obtain some information in a police station he went to one. On leaving the building he noticed the police booth and a lantern inside of the booth. His own account of what followed is:—"I suddenly conceived the idea of entering the booth and discharging my revolver there. As I

entered the booth I found myself face to face with two policemen. I discharged my revolver, as I felt impelled to do, and then sent one bullet in the direction of the corner where the two policemen stood. As soon as I had done this I realized the enormity of my act, but unfortunately it was then too late."

He was arrested and being adjudged irresponsible, was transferred to the Admission Bureau of the Asylum.

From the medico-legal standpoint, the interest of this case centres on the homicidal attempt. On close examination this act is not a simple one: although the patient seems to possess a certain amount of responsibility, a clinical examination of his mental status at once shows that he is an irresponsible subject. Indeed, the acts of this subject clearly lack aim and intent, as well as purpose: his obsessions and impulses to injure others and to kill himself are not like the typical obsessions and impulses; there is an absence of the struggle with self against the morbid inclination and desire to bring it into effect. Far from appreciating the enormity of his morbid tendencies, he apathetically shoots at two policemen or attempts to kill himself, without any struggle with himself, without having a thought to restrain himself. If he does realize his position to some slight degree, the appreciation is insignificant and is stamped by debility. Indeed, the entire clinical picture of this case is one of mental debility: he wishes to kill himself without having any particular reason for doing so. Some confused appreciation of his duty toward his parents interferes with his committing suicide. Similarly, he has no appreciation of the value of life of others, and shoots at two policemen he happens to notice in the booth. When questioned about the commission of such an enormity, he apathetically remarks, that after the shooting had been accomplished he realized that he had done something that was wrong.

This mental status, in connection with the life history of the patient, leaves no doubt as to his mental debility and consequent legal non-responsibility. Indeed, the patient was discharged from legal custody on this ground.

Cases like the one above cited present a deep interest from the medico-legal standpoint. Thus, under ordinary circumstances, when the violent act of such a subject is viewed calmly, without prejudice, and in the true light of its aimlessness and lack of purpose, the invalidity of the perpetrator's psychic state presents itself to our judgment without further argument. If such an individual happens to attempt or to execute a deed of violence on an important person, however, the perpetrator's mental invalidity is apt to be questioned by the jurist and judgment is thus apt to be

rendered without regard to the culprit's mental condition. An erroneous course of legal reasoning is particularly apt to be followed when the homicidal act is aimed at a person belonging to the high political or commercial world. If apprehended, such a culprit easily admits his guilt in passionless terms, and a judge, unfamiliar with the clinical characteristics of the invalidity in question, is particularly apt to mistake utterly irresponsible movements of such a subject for the deeds of a reasoning and constructive individual. This frank and easy admission of guilt often excites the wrath of the ignorant crowd who clamor for revenge on the culprit who "boldly admits" his crime. The judge who considers the psychic individuality of such cases, however, can easily discern that the frank admission of crime is in no way indicative of appreciation, that mental debility dominates the entire scene, and that the culprit is in fact irresponsible.

In contrast to the ready admission of violence met with in some cases of mental debility, the jurist often comes in contact with homicides who are puzzling because they present semi-amnesia or complete amnesia of their acts. The uninitiated are quite as likely to regard with suspicion homicides who present amnesia or semi-amnesia of their dangerous deeds as they are to immediately condemn homicides characterized by willing, if apathetic, admissions. But one who is familiar with the characteristic features of clinical cases is also familiar with the fact that amnesia is a common manifestation after post-epileptic delirium, and that amnesia and semi-amnesia are both common manifestations after hysterical delirium. Amnesia and semi-amnesia may become puzzling medico-legal features, however, when the homicide claiming to have no recollection of the dangerous deed committed by him is not affected with the frank form of hysteria or epilepsy. Such cases are more frequent in occurrence than the general medical practitioner imagines. The psychiatrist, however, finds cases of simple mental depression or excitation, free from classic epileptic or hysterical manifestations, but characterized by a certain degree of amnesia or semi-amnesia relating to acts during the stage of excitation, very frequently in his clinic.

Later on I shall have occasion to refer in detail to the question of typical amnesia in typical cases of neuroses and psychoses, such as epilepsy and hysteria. For the present I shall cite a case that is illustrative of melancholic depression and some phases of excitation, accompanied by a certain degree of semi-amnesia of the acts attempted during the spell of excitation. The case is of particular medico-legal importance because of the semi-amnesic phase regarding the homicidal attempt.

Case II.—*Mental Degeneracy with Melancholic Depression.—Homicidal and Suicidal Impulses.*

R. R., 17 years old, entered the Admission Bureau, Ste-Anne Asylum, June 24, 1899. Her father is of a nervous temperament, but is temperate in his habits. The paternal grand-father was healthy; he died aged 92 years. A paternal uncle is sickly; two paternal aunts are healthy. The patient's mother is nervous, irritable and excitable. The maternal grand-parents were healthy. The maternal uncles and aunts are healthy. The patient's sister, 15 years old, is healthy; a brother, 11 years old, is nervous and irritable.

The patient has always been healthy. She left school when 13 years old and became a dressmaker's apprentice. She menstruated for the first time at the age of 15. She has always been fearful and never entered a dark room unless accompanied by some one. She has been subject to spells of vertigo and to a sensation of slight shocks, as if produced by tapping with a finger. At night she often experienced a sensation as if she were lifted up with the mattress of her bed. She had suicidal and homicidal spells that took place only after spells of the excitation to which she was subject.

Six months before entering the hospital she became mentally depressed and the depression was often accompanied by terms of excitation. She lost interest in her work and frequently, while returning home, would sit down on some street bench and remain there for hours, absorbed in her melancholic thoughts. When asked why she spent her time on the street benches, she said: "I am bored and tired; I have lost my courage." She forsook her work for eight days and remained at home, taking no interest in her surroundings. She was induced to go to work again, but again left it at various times, because she was too depressed mentally. She imagined that she was not liked, that people intended to harm her, and that she was despised by all who came in contact with her; she said that even her own sister despised her. Eight days before she entered the asylum she became excited, tore her hair and cried. She said: "I am bored without knowing why." She then decided to kill herself. She filled a glass with kerosene oil and was about to swallow it when her sister discovered and restrained her. She said to her sister: "I have always had a strong desire to throw myself into the Seine." As her sister tried to reason with her and calm her, she suddenly sprang at her and made an attempt to kill her.

At the asylum, the patient remained quiet for some twelve days.

She then suddenly became violently excited, tore her hair, her clothes and her bed linen. She did not speak, but seemed to be absorbed in her agitation. She tried to kill herself by striking her head upon the floor and by pounding her head with a pair of shoes. This spell lasted some ten minutes. The patient then remained in a condition of mental depression and wept until evening. When asked about the cause of her excitement she did not remember clearly the details of the attack. On examination, it was found that she presented marked hypoaesthesia of the face, head, upper limbs and trunk to the waist line; below this line the body and limbs presented exaggerated hyperaesthesia. The slightest touch below the waist line caused her to jump and scream.

From the text of the above cited case it is evident that the patient cannot be held responsible for her homicidal attempts, because she is mentally irresponsible. Besides the element of melancholia she also presents some hysterical stigmata that should be taken into consideration. Indeed, they explain to a certain degree the semi-amnesia of her attacks of fury, during which she attempts suicide or homicide.

The case that follows is equally instructive and interesting from a medico-legal standpoint, because cases like it are apt to be misinterpreted by the jurist unless he is entirely conversant with clinical phenomena in psychiatry. The text descriptive of the case speaks more convincingly than would any argument.

Case III.—*Attempted Homicide.—Melancholic Depression.—Mental Preoccupation.—Probable Reminiscence of his Homicidal Act.—Morbid Heredity.*

A. C., 28 years old, entered the Admission Bureau, March 28, 1899. His mother died some days after the birth of the patient, who was the only child she had had. On the mother's side all the members of the family were free from any morbid taint; the grandparents, uncles and aunts died of old age. The father enjoyed good health and contracted a second marriage after the death of his first wife. Mentally, he was noted for being "queer" in his ideas. This did not prevent him from properly administering an estate that he had inherited in Mexico. He had an attack of sun-stroke and was treated at the Pau Asylum for a period of one month. He died of "brain softening." During his second marriage he had had three children, two of them are living and healthy; the third one died of typhoid fever.

The patient had a normal childhood, but he has always been known to be "queer" in conduct. He was taciturn and mis-

anthropic, but he attended properly to his business. Two years before his present illness, he went to Mexico to attend to his inherited estate and then began to indulge in alcoholic drink. This tendency was particularly manifested on his return to Paris, where his companions encouraged him in this new habit. From time to time he was noisy or unusually reticent, shutting himself up in his room and refusing to see anyone.

On his return from Mexico he went to live in a hotel, where he remained for some time. One night he suddenly arose, dressed himself, and left for another hotel. It is not certain whether he was suffering from hallucinations or whether it was some delusional ideas that prompted him to make this change at an untimely hour of the night. Although there was no unoccupied room in the hotel, the proprietor allowed him to occupy a room that belonged to one of the guests who had been absent from the hotel that night. At three o'clock in the morning, the tenant of the room arrived and walked into it. On hearing the noise, our patient imagined that a thief had come to rob him and immediately discharged his revolver several times. The noise brought a number of people into the room and they tried to reassure the patient of his safety, but he persisted in his defensive attitude. When told that he would be disarmed and that his own weapon would be used against him, he was not at all intimidated; he still imagined that he was in danger of being robbed of the 50,000 francs that he had inherited. The tenant of the room then went to the police station and asked some officers to accompany him to the hotel. When the officers came and wished to enter the room, our patient showed resistance; he discharged his revolver and narrowly missed killing one of the officers. The patient was then arrested and taken to the *Infirmierie du Dépôt*. When asked for some reason for his violence, he answered, in a stereotyped manner: "I don't know anything; I don't know how this happened; I don't remember anything." Nevertheless, when questioned closely, he could be induced to relate the story as it had actually occurred. He seemed to be very much worried over the fate of the officer whom he had nearly killed, and repeatedly inquired about his condition. He remained in a melancholic condition and took no interest in his surroundings. Some days after the accident he was informed that the wounded man was out of danger. It was hoped that the patient would cheer up on hearing this news, but his melancholic attitude did not change at all; on the contrary, in the course of some days he became more depressed, and limited his conversation to the few words "I don't remember anything; I don't know." He partook of food in sufficient quantity, but ate very slowly. When brought

to the Ste-Anne asylum he was put to bed, and he remained there listless, evading the looks of those near him. When asked how long he had been in the ward, he said "I don't know." When asked whether he had anyone in Paris who was interested in him he gave the same answer. He slept well nights, but appeared apathetic during the day. His mental capacity seemed to be enfeebled.

This case presents a peculiar interest from a medico-legal standpoint, because it is not typical in its clinical features. Clinically, it is justifiable to suppose that the patient labored under the influence of some delusions, although these were not clearly discovered. His sudden departure from the hotel at an untimely hour of the night speaks strongly in favor of his having been governed in his acts by some delusions or hallucinations. His desperate struggle with the police officers after he had been reassured that no burglary had been intended casts a strong suspicion on the delusional or hallucinational nature of his attempted homicide.

The patient was discharged from legal custody.

The case that follows is less difficult of medico-legal handling than the cases before cited. Indeed, its clinical features are characteristic of melancholic depression with suicidal tendencies. A similar case may present itself for legal consideration if homicidal tendencies govern the scene. The legal non-responsibility of the afflicted person under those conditions would have to be recognized.

Case IV.—*Melancholia.—Suicidal Attempts.*

B. C., 40 years old, entered the Admission Bureau June 20, 1898. The full history of this patient cannot be had. She has always been nervous, especially during the periods of menstruation. She is subject to violent headaches. She has had six children, one of whom died during forceps delivery, in 1887. After this childbirth she was in an invalid's chair for nine months. In 1892, she had an abortion of six weeks. The patient's husband states that the patient has overworked considerably during the last year and was much affected by a large loss of money the family had sustained six months previously. She began to lose flesh in 1897. She then weighed 144 French pounds, while on admission she weighed only 108 pounds. She worried considerably over the loss of money that amounted to 10,000 francs and cried by day and night. She lost sleep and became emaciated. One morning in April, 1898, she woke up with a swelling of the thyroid gland. This trouble only helped make her more depressed. She was sent away to the country, but was restless there and soon returned to

Paris. Her insomnia became alarming and she made frequent attempts to kill herself by knocking her head against the wall, upon the floor, etc. On April 14, 1899, she was sent away from home and seemed to improve somewhat. She then came home again. No sooner did she find herself in the familiar surroundings, however, than she became excited and made a desperate attempt to kill herself by knocking her head against the wall. She cried: "I wish to kill myself." When brought to the asylum, she tried to control herself and said that she was feeling better. She only simulated, however, because she was watched closely here and could not commit suicide as easily as she thought she could at home. She sought, therefore, to get home, in order to kill herself. During spells of excitation she cried: "I must die instantly in order to be happy. My body is rotten. It is for this reason that I suffer. It is for this reason that I wish to die." She feared that her children would have to go begging and that they would fall ill from want. She then cried: "This is intolerable. I must be damned, or such a misfortune could not have befallen me."

Up to the present we have examined the simple forms of clinical manifestations. From a medico-legal standpoint, these simple forms of mental aberration are apt to be most difficult of analysis, because they border on the limits of so-called sanity, although they are distinctly insane to the psychiatrist and leave no doubt in his mind regarding the legal non-responsibility of person thus afflicted. The following case presents a typical systematized delirium of polymorphous form.

The mental irresponsibility of such cases is quite apparent even to those who are superficially informed on psychiatric manifestations.

Case V.—Polymorphous Delirium.—Mental Degeneracy.—Melancholic Depression.—Suicidal Attempt.—Illusions.—The "Already-Seen."—Delusions of Grandeur.—Disturbances of the General Sensibility.—Error of Personality.

E. F., 20 years of age, single, entered the Admission Bureau, January 21, 1897. Her mother is very nervous, odd of conduct and sputters when she talks. The patient's maternal grandmother killed herself while an inmate of an insane asylum. A paternal aunt died insane in the St. Louis Hospital and a cousin was also insane. Both the aunt and the cousin had ideas of grandeur. Our patient's sister, J., 24 years of age, is insane and is also an inmate of the Admission Bureau. A brother, 28 years old, suffers from mental debility and cannot make a living.

During her childhood, the patient had no serious illnesses. She began her trade as milliner when 14 years old and over-worked at the beginning of every season. Her father died some time before she was committed to the asylum and his death affected her considerably. The family fell into material distress after his death and her sister J. became insane at the same time. This physical and moral distress at home, combined with hard work and little pay, may be considered the exciting causes of her illness.

In May, 1896, she began to feel fatigued without knowing exactly why. She was living with friends at that time, and her mother took her home. At home she soon showed distinct symptoms of insanity; she was eccentric in her acts as well as versatile in her delusional conceptions. One day she climbed up on the roof and began to tear it down and threw down the tiles, so as to see what was going on in the garret, he said. This was followed by ideas of autoaccusation. She feared that she had acted badly and was, therefore, markedly depressed. She went about aimlessly and wandered out into the street. There she imagined that she was being followed because of her bad act and was being chloroformed. This sensation distressed her and she suffered intensely from a sense of remorse. She wept, returned home and begged her mother to kill her because she had behaved badly in having torn up the roof. Besides, she said, she had had enough of life, although she could not exactly explain why. In the beginning of October, 1896, the family moved into a less expensive house. They could hardly manage to keep from starvation. This change had its effect on our patient. She now manifested decidedly marked delirious troubles. In the midst of this struggle and poverty, she manifested a systematized delirium of grandeur. She was rich, she said: she possessed valuable real estate and could support all the tenants who inhabited her houses; she was buying furniture for all of them; they did not need to work any more; she could support them all with her own capital. She herself was now a distinguished personage and did not belong to the family plunged in misery. She considered her mother an inferior being and struck her. The patient considered herself the most beautiful woman in France and imagined that she had a number of ardent admirers. She was now a well known Mrs. X., and had a boy, three years old; she was an actress of great repute and belonged to the Odeon staff; the director of this theatre had even killed a man who had tried to be his rival in her affections; the matter was, however, of little importance to her, she said.

She presented still other characteristics of her delirium. Thus, whatever she saw, heard or felt she imagined that she had seen,

heard or experienced in the past. Everything about her was a repetition of old impressions and experiences. Nothing surprised her in this life, she said. No miracle, no scientific discovery was new to her. She had been everywhere, had traveled all over the world. Nothing seemed impossible to her in this world, and everything was a general repetition to her.

Her admirers brought her everything she could wish for, but in the midst of this luxury she felt that she was living an "unreal" life. This feeling depressed her at times, she said. The reason of this depression was the following: she was living a "double life." One life was that of misery and privation while the other was that of profuse luxury. "The former appalls me," she said, "and the latter does not satisfy me." The people around her also tired her, because they did not understand her. Life was not what it should be she said; "It could be so beautiful."

November, 1896, she had a spell of profound depression and implored her mother to kill her. As her mother tried to reason with her, she went up to the attic determined to end her life there. She tied a curtain around her neck and attempted to hang herself. She would have succeeded had she not been caught in the act. She did not improve mentally and on January 17, 1897, made a second attempt at suicide by hanging. She was surprised adjusting a rope to a hook in her room. She was annoyed at the interference and on January 18, made still another like attempt. She was again prevented from taking her life, but she repeated the attempts. She was found sobbing and holding a knife with which she was about to cut her throat; she was murmuring and crying, "I shall kill myself." She then made several attempts to poison herself with petroleum.

At the asylum she was quiet, indifferent and apathetic. She always enjoyed conversation and showed some animation while talking. At times she recognized that she had delusions, but when she did not wish to admit having delusions she used some aphorism in defense of her ideas. Thus, when it was explained to her that her ideas could not be true, she answered: "Everything can be stamped as insanity if we do not care to understand it."

Her errors of personality, her ideas of grandeur and her "already seen" had a stamp of the impossible. Thus, she had seen all the patients of the asylum before she had been admitted here; she had found excellent occupations for them when they were at large. The patients had seen her, too, but they did not recognize her for a good reason: she could change her skin, the color of her eyes, and her general appearance, whenever she wished to do so. She had been in America several times, she had visited New York, she

had been everywhere. There was not a place in the world that she had not visited, and there were few people whom she had not seen. She knew my biography; she saw me when in New York. She had been at Ste-Anne one thousand times and this was her 53rd admission to the asylum. I was asking her what I had asked her on previous occasions; her history in the case book would show that what she said was true.

When I reasoned with her and explained that what she said was impossible, she did not feel offended. She simply remarked "perhaps you are right; if I had a perfect memory I would be a most cultured person."

She had written a number of remarkable books, she said, some of which are quite widely known and appreciated. Her new Bible was quite an improvement on the old one. Her own beauty was a source of inspiration to her. She wrote love letters to herself, saying that she was the most beautiful woman in France. At times she felt as if she would have liked to kneel before herself in admiration of her own beauty. This sentiment may seem odd to the vulgar crowd, she explained, but not so to her, who understood life far better than did the ordinary person. As a further explanation of her views she remarked that "everything is possible in an unreal life" like hers. She lived several lives, not only in thought, but also in body. She explained that she had wished to kill herself before she was brought to the asylum because she had foreseen her destiny.

Her abstract ideas seem to be founded on what she has read in novels and other books.

Case VI presents characteristic features of maniacal excitation with hallucinations and sudden agitation. The patient described therein committed murder in a fit of hallucinatory furor. He was discharged from legal custody on the presentation of the results of the medical examination of his case.

From a clinical standpoint, it is interesting to note the transition of this attack of furious maniacal excitation into melancholic depression.

Case VI.—*Maniacal Excitation with Hallucinations.—Sudden Agitation Followed by Acute Violence and Murder.—Melancholic Delirium with Multiple Hallucinations of a Painful Nature.*

Ch. M. A., 30 years old, was brought to the Admission Bureau, Ste-Anne Asylum, October 22, 1898. His father had apoplectic attacks when 61 years old. After one of these attacks his left side remained parietic, his mental faculties failed him, and he died two years thereafter. The full history of the patient cannot be

had. The information given is as follows: the patient had an attack of maniacal excitement with hallucinations, during which he seemed to be in a condition of extreme fright. While being tormented by fear of imaginary danger, due to painful hallucinations, he was suddenly overcome by a most furious outbreak of blind violence and, grabbing a knife, killed his mistress with it. He was arrested and brought to the Infirmerie du Dépôt. Here he manifested acute delirious agitation with hallucinations of sight and hearing. He shrieked with terror, his words were disarticulated, and the pupils were dilated. He was then transferred to the Admission Bureau for further examination. Here the patient remained excited. The excitation was acute and extreme, due to hallucinations. He pointed with his hands at imaginary objects and stared at them with intensity. Now and then he cried out some few words that indicated that he was under the influence of hallucinations of various kinds. Thus, he cried out once: "I smell dead bodies. Oh, they have knocked out my brain. My father should have become the king of France. It was about to be accomplished, at last. They have poisoned me and have blown out Zola's brain." When asked about his mistress, he quickly replied: "She is dead, because there is an odor of dead bodies." On August 23, his temperature was 38.2 degrees C. and he slept only two hours during the night, although he was given three grams of chloral. He was agitated and tormented by hallucinations. It was impossible to fix his attention on anything; he could only be interrupted in his hallucinatory wonderings. When asked questions, he often replied: "They have killed me." He seemed to have marked hallucinations of smell, because he often spoke of smelling dead bodies. His temperature ranged between 38.1 and 37.6 degrees C. He was given three grams of chloral and slept during the night. The day following he was absorbed in his hallucinations, rapidly addressed some imaginary persons and pointed at something in the distance. At times he laughed at some imaginary things and attempted to walk up to imaginary people. On August 25, his temperature ranged between 38 and 37.4 degrees C. He was given three grams of chloral and slept the greater part of the night. While excited, he said: "I am the Eternal because my wife is eternal." During the following few months his condition remained unchanged and he had frequent spells of marked excitation. In December, 1898, he had a marked attack of agitation with hallucinatory excitation. On February 25, 1899, he became more quiet and had a spell of marked depression that was interrupted by intervals of excitation. In May, 1899, he was in a condition of melancholic depression and was still subject to hallucinations.

Case VII is quite typical of the usual manifestations of maniacal excitation with suicidal and homicidal attempts.

Case VII.—*Mental Degeneracy.—Maniacal Excitation.—Hallucinations.—Incoherent Thoughts and Acts.—Loquaciousness.—Ambitious Ideas.—Suicidal Tendency.—Attempted Homicide.—Delusions of Persecution.—Suppression of Menstruation.*

Mrs. Elsie B., 31 years old, entered the Admission Bureau, May 5, 1897. The history of her family is not to be had. Her father died when 76 years old and her mother died at the age of 68.

Twelve children were born in the patient's family and she was the eighth. She married when 21 years old and has had two children; they are 9 and 4 years old respectively. The present illness of the patient began about one year ago. Before this date, she behaved oddly only at certain times. Thus, she was hypochondriacal now and then, she feared that she was about to become ill or to die. On May 28, 1896, she lost her husband, and one of her sisters on the same day. She was menstruating at that time, and when she was told the news of the deaths in the family there was a sudden arrest of the flow. It did not reappear until January, 1897.

The day following the deaths in her family she became delusional and imagined that she was being persecuted. She was afraid to leave her room because she imagined that murderers were watching for her in the cellar and were going to kill her. She refused to take food and attempted to jump into a well. As this condition remained stationary, her friends decided to take her to Paris; they put her into a carriage and started with her for the railroad station. She became so violent, however, that it was considered prudent to return home with her. She was then placed temporarily in a private sanitarium. She remained there one month and obtained her discharge, while still unwell mentally. She went to live with her sister-in-law. She was kept home until the following October and at that time it became impossible to keep her at large. She refused to see her friends, she did not eat and spent restless nights. She then suddenly went to live with her father, but she soon tired of the life there and in December she went to Paris. She stayed here a short while, returned to her father and came back to Paris in April, 1897. She then went to live with another sister-in-law and brother, in another town. She was now very nervous, irritable, excitable and refused to eat. On May 1, 1897, she had a quarrel with her relatives and went to live alone in a hired room. The day when she moved into this room she became greatly excited and broke everything that came to hand. When her relatives were summoned

she begged to be taken to her father's home. She was, accordingly, driven to the station. When she entered the railroad car, however, she became excited, sprang upon a passenger, and attempted to strangle him. Her brother tried to stop her in her act, but she only became more violent and obscene. She was then taken to the Infirmerie du Depot and finally to the Admission Bureau, Ste-Anne.

She talked in an incoherent manner. She had some diffuse ideas of grandeur and said that the President of the Republic must execute her orders, or else "be swallowed up." Her incoherence and obscenity gradually increased in degree and she was noisy and restless most of the time. May 12 and 13 she menstruated, but the flow did not appear again for some months later. Her temperature varied daily from 39.9 to 38.2 degrees C. until July 8. Her agitation was extreme. She shouted, screamed, sang, gesticulated and used very obscene language. Her hearing was most acute, nevertheless. She noticed everything and saw everything. In her own way, she made quite witty remarks; but whatever her remark was, she appended to it an obscene ending. In June, she spoke of herself as being a countess and a princess, although she was much abused and poisoned. At different times between June and September, 1897, she showed some calmer moods, but these did not last long.*

In the following case is given a description of the usual form of delirium of persecution in a degenerate that frequently comes under the magistrate's notice. As will be seen from the description, such cases are not responsible for their acts and should be cared for in hospitals for the insane.

Case VIII.—*Mental Degeneracy.—Hallucinations.—Disturbances of the General Sensibility.—Delusional Interpretations.—Hypochondriacal Ideas.—Delusions of Persecution.—Complaints, Threats and Dangerous Acts of Violence.*

J., 50 years of age, entered the Admission Bureau, December 26, 1896. Her father was 68 years old when she was born. Her

* While this patient was in the ward, the bed-treatment was in use and eight noisy cases were thus being treated. I experimented at that time with the effect of music on these patients, violin music being used. This patient, who was the most obscene subject in the ward, seemed to be profoundly affected by the strains from the instrument. As the violinist played, she stopped shouting, gesticulating and singing. She listened for a while in silence and then began to beat the time of the waltz that was being played; she made motions in the air with both her hands, as if wielding a baton. When the musical seance was ended, she looked up, as if still listening, and said:—"Il me faut de la musique."

mother had a violent temper and all her children inherited this trait.

The patient has always been nervous and irritable and did not learn easily at school. In spite of a long period of tuition, she did not learn to read or write. She says that her eye sight troubles her and she made no progress in her studies on that account. She menstruated for the first time when she was 19½ years old, and has suffered considerably from metrorrhagia and menorrhagia.

She was married when 26 years old and one still-born child was the result of this union. She says that her married life was an unhappy one, because she was of a gay disposition, while her husband was sedate. She laughed on the slightest provocation, she says, and often hid herself in a corner where she could laugh to her heart's content without being seen by her husband, who objected to her exuberance of spirit. She could not get along with him and left him in 1881. In 1892, she began to exhibit signs of hypochondria. She complained of pains in the abdomen, thought she had tapeworms in the right side of her belly, and imagined that she was subject to many other ailments. She went to a druggist, in the neighborhood and asked him to treat her. He gave her some medicine for the tapeworm, and she says that she passed it, but that its head remained in her bowels. In 1891, she consulted Dr. Ch. . . . about her abdominal pains, and he operated on her. According to her statement, he found that she suffered from an ovarian fibroma and cut it out. She submitted to this operation against the advice of the druggist who was treating her. After the operation the druggist and Dr. Ch. . . . became the principal persons in her delirium.

Thus, she says that she was chloroformed before the operation so that her entire personality might be changed. She is convinced that this was the main purpose, because her sense of smell has become changed since the date of the operation. She explains that odors that were agreeable to her formerly are now obnoxious to her. The smell of flowers was always agreeable to her, but now it gives her a headache. She imagines that the attendants in the wards are her enemies, that they work against her interests, under the direction of Dr. Ch. . . . and the druggist. She accuses the attendant of having put some drug into the bath-tub while she was bathing, and insists that the drug caused her to undergo a spell of unconsciousness. While she was unconscious, she says, she heard someone say: "She should have been let alone." She remained in the hospital for some time and finally obtained her discharge. She then returned to her druggist for treatment for the tape worm. He gave her some more medicines that "congested" her and "drove her insane." He advised her to remain in bed

while taking the medicines, and she interpreted this to mean that he wished her to be poisoned with the medicines while she was in bed. This idea pre-occupied her mind and to assure herself that she was not mistaken in the matter she took the medicines to the Municipal Laboratory of Paris for analysis.

The Director of this laboratory advised her to lay the matter before the commissary of police of her district. This official listened to her complaint and advised her to have the desired analysis made at her own expense. As she had no money to spend for this purpose she considered that she was surrounded by enemies. She left the medicines at the police station and said that she would come back for the result of the analysis. True to her word she came back, but as no analysis had been made, she took her bottles with the medicines and went back with them to the druggist. He was not in the store when she called, and she went home, only to return to the store again. As she again failed to find him, she became excited and said that he was hiding himself. She was determined to see him, however, she said, even though she had to spend a whole night on the street. The druggist came into the store while she was making these threats, and when told of the trouble, tried to assure the patient that the medicines were of the best quality. He made her smell them while assuring her that the drugs were not poisonous. She immediately interpreted the incident as meaning that she was made to smell the medicines in order to get her poisoned on the spot. The druggist had a special reason to rid himself of her, she said, because at one time he had invited her to take a ride with him in a carriage in order to accomplish a base purpose. He, therefore, stood in fear of her, and wished to get rid of her.

The disturbances of her general sensibility led her on to give delusional interpretations to many other incidents of insignificant nature. Thus, on one occasion, the janitor's nephew shook hands with her while greeting her in the morning. She immediately had a sensation of itching under her skin, as if pins and needles were running back and forth. On another occasion she overheard somebody say "my children's future will be assured," and she at once construed this to mean that the future of the children would be assured at the expense of her safety; that she was about to be harmed; that the itching in her extremities was the beginning of the harm she was about to suffer at the hands of some people, whose children's future was assured. Her delusions were thus extended and now pivoted about the pharmacist, Dr. Ch. . . ., the janitor's nephew, the person who had made the remark about the children's future, etc.

The disturbance of sensibility also extended more and more. She imagined that she could not move her fingers and went to consult Dr. Ch. . . . at the Beaujon hospital. He told her that there was nothing the matter with her fingers. This excited her and she created a scandal there, for which she was put out. She returned home in an angry mood and on her way home met a woman neighbor. She imagined that this woman looked at her "askance." The patient resented this and as soon as they both reached their homes the patient ran into her room and picking up a glass ran out and threw it at her friend with all the violence that her fury could command. The woman was struck on the head, receiving a severe scalp wound. When the patient was reprimanded for her violence and told how fortunate she was that the woman's skull had not been fractured, she replied that the woman had called her a bad name. She explained later that this woman was an agent of Dr. Ch. . . . , of the druggist and of the persons who tried to do her harm.

She was arrested for this assault but was released as soon as the woman recovered from her injuries and was well enough to leave the hospital. Again at large, the patient immediately went to Dr. Ch. . . . and denounced him as the chief leader of her persecutors. She was violent in language and created another scandal, and was again arrested. After due legal examination she was finally transferred to the Admission Bureau, Ste-Anne.

In the asylum she accused everyone of being her enemy and of poisoning her. Everyone was working with Dr. Ch. . . . and the pharmacist against her. The disturbances of sensibility were more extensive now. She felt that she was being choked all the time, she had a worm in her throat, wind was blowing in her throat all the time, and her expectoration was full of worms. Her hallucinatory interpretations were so strong that she could not be convinced of the fallacy of her constructions. At times her delusions and hallucinations were so strong that she became excited and violent.

The above cited case is most instructive from a medico-legal standpoint. Cases like this one are often apt to be handled in Court proceedings and a clear understanding of the affection described may be of advantage to the jurist.

In connection with this case, and with some cases that are to be cited further on, it may not be amiss to make a few remarks regarding the classification of the systematized deliriums as adopted by the leading psychiatric schools. An understanding of the meaning of the various clinical terms may often prove helpful to the jurist who is unfamiliar with the minute psychiatric terminology.

I shall cite these comparative terms from Dr. J. Roubinovitch's excellent work entitled *Des Variétés Cliniques de la folie en France et en Allemagne*.

Speaking of these clinical varieties, he says, in part:

"Paranoia of the Germans corresponds to all the systematized deliriums of the French classifications. These systematized deliriums include the delirium of persecution of Lasègue, chronic delusional insanity of systematic evolution of Magnan, delirium of the persécuté-persécutateur of Falret, polymorphous delirium of sudden onset, of short duration, and curable, of the degenerate, etc. The doctrine regarding the majority of these systematized deliriums is the same in France and in Germany. M. Magnan excepts chronic delusional insanity of systematic evolution, which, according to him, is never connected with hereditary or acquired predisposition.

"According to Krafft-Ebing, paranoia is a chronic and incurable mental affection in which the systematized delusional conceptions are of primary development, that is to say, without a premonitory stage of depression or of excitation. He divides the paranoias according to the time of their onset into an early and tardy form. The tardy form is divided in its turn into: typical, sexual, litigious, religious, erotic, etc.

"According to Krafft-Ebing, all these forms of paranoia manifest themselves in individuals with fully developed but invalid brains, that is to say, in individuals belonging to the group of psychic degeneracies.

"M. Schuele does not use the term *paranoia*. He substitutes for it the term *Wahnsinn*, thus causing much confusion in the German terminology. He also recognizes an early and tardy form. The early form is called *originäre Verruecktheit* and the tardy form he subdivides into acute and chronic. Schuele's doctrine is in part the same as that of Krafft-Ebing: Schuele's chronic *Wahnsinn* is also grouped among the psychoses with an invalid brain; the early form, however, is grouped among the psychoses proper to the brains stamped by arrest of development.

"Some authors, like Schuele and Mendel, recognize the existence of an acute and subacute form of paranoia. Kraepelin designates by the term *Wahnsinn* a morbid form resembling acute systematized insanity."

With this short preface, it will be easier to understand the cases immediately following that are grouped according to the French classification.

Case IX presents a typical description of what is termed in psychiatry *persécuté-persécutateur*. During a period of five years the patient described therein labored under obsessional delusions, and finally murdered the priest who, according to her reasoning, was defaming her good name.

Case IX.—*Hereditary Mental Degeneracy.—Mystic Ideas with Transitory Hallucinations.—Delusions of Persecution of an Obsessional Nature.—Incessant Pursuit, During Five Years, by Imaginary Enemy.—Assassination.—Absolute Want of Conscious-*

*ness of Criminality of the Act.—Two Years After the Murder, Dissimulates the Delusional Ideas.**

Miss A., 50 years of age, entered the Admission Bureau, in May, 1895. Her mother was mentally unbalanced. She had never married and had lived with several men. The patient is one of her natural children. A.'s sister, of a different father, was, like her mother, of lax morals. The mother was also a zoophilic. She cared for several dozen cats in her house and neglected her children.

During childhood, the patient was sickly and had frequent convulsive attacks. Her intelligence was normal until she was seven years old. At that time she had an attack of typhoid fever. After recovery, she forgot everything she had previously learned at school. Speaking of this, she says: "I could not remember anything I had learned. I was like an idiot." She was then sent to various boarding schools, but was discharged from all of them because of her feeble intellect.

Besides this mental enfeeblement, she was unusually emotional. Very often, after her mother's visits, she had hysterical attacks, losing consciousness thereafter. She has always been very religious: although educated by a Protestant grandmother, she fervently embraced the Catholic religion. She often remained the best part of the night kneeling and praying.

When 15 years old, she engaged in business and remained sixteen years in the same establishment. Every morning of this period she arose at five o'clock and went to church, often arriving so early that the doors were not yet open. She spent some two hours daily at church, in a condition of ecstasy, perfectly oblivious of what was going on around her. She was often found at one church in a unconscious condition and carried to a near-by drug store for treatment. The unconscious spell generally came before or after the ecstasy. She fasted regularly during the entire period of Lent.

She was maltreated by her mother and when 28 years old decided to leave her and go to Brittany to live with a new employer. She worked there as a "modiste" for fourteen months, but was not contented with the new surroundings and decided to go back to Paris. While preparing for the return voyage she saw an apparition of God. She was at mass when this happened, and the apparition said to her: "Do not go to Paris." She was blinded by the intensity of the divine light, she says, and then she distinctly saw Christ's figure. Returning from church, she found a letter sent

*I am indebted to Dr. Leroy for many details about this case that he published in his excellent thesis.

by a friend urging her not to come home because her mother was determined to kill her.

A. refuses to tell the whereabouts of that letter. At all events, she presented transitory visual hallucinations to which she gives a delusional interpretation. She is convinced to this day that her mother waited for her at the railroad station intending to kill her. If an attempt is made to reason about this matter, she becomes angry and says: "Then you refuse to take my word for it. Everybody knows that my mother is quite capable of doing such a thing."

She returned to Paris later on and went back to her old employer. Soon after she had some official difficulty that was followed by morbid consequences. Her father had adopted her and had left her some real estate. She sold this property, signing the deed under her father's name, although she was generally known by her mother's name. She became worried about the matter of her name and imagined that everybody pointed at her and talked of her being a natural child.

Some years before this she had affiliated herself with a society of working women that was directed by a Sister of Charity. When the patient became worried about her name she went to this Sister and asked her to change her name on the list of members. The Sister refused to do this, and the patient felt greatly annoyed. She went to her confessor, who later became the victim of her delusional interpretations.

The abbot spoke to the Sister of Charity and succeeded in having the patient's wish complied with.

No sooner was this done, however, than the patient gave a delusional interpretation to the act, imagining, at the same time, that the Sister was telling everyone that she was a natural child. She was considerably upset about this and spoke to the Sister about the matter. She was angry during this interview and spoke disrespectfully. The Sister then forced the patient to leave the association. This incident was only a new pivot for a delusional interpretation. Indeed, the patient immediately concluded that she had been forced to resign her membership in the association because of her being a natural child. Besides, this forced resignation of membership caused her a loss of her entire savings, some 2,000 francs, according to the association's rules.

The patient instituted legal proceedings against this association. She swore that the Sister had forced her to resign because she was jealous of the patient and of her friendship with the abbot. As the patient did not have enough money to carry on her law suit, the abbot sent her his own lawyer, who offered to conduct

the case. When the case came up for trial, the abbot was again called in as an intermediary and he advised the two to come to some friendly understanding. His advice was taken. Remark- ing on this peaceful conclusion, the patient said: "I consented, although I had lost 1,000 francs by not prosecuting; but it was because of the abbot's goodness to me that I acted on his advice." On close questioning she admits that she loved him.

A few years after this, the patient was in bad health and was compelled to discontinue her work. This also necessitated her resignation from the above mentioned association, as it was for working women only. She then went into a private sanitarium for treatment.

From that time on the patient gave a delusional interpretation to every act of the abbot's. She reasoned that he had advised her to make peace with the Sister because he was partial toward the latter. The Sister played only a remote part in her delusions, however, while the abbot was her main victim.

She imagined that he spoke to everyone about the secret of her birth and that everyone knew that she was a natural child; she noticed that in the street passers-by turned their backs towards her and looked askance at her. She reasoned that she had lost the abbot's friendship because the Sister was in love with him. To a friend she said about the Sister:

"I shall scalp her, in order to attract public attention and to thus bring her to justice."

During a period of three successive years she followed the priest, waiting for him in the street where he lived and even changing her apartment so as to be closer to him: She often put on thick veils to disguise herself while spying on him. One day a woman told her that she could furnish her with information derogatory to the priest's moral character. The patient grasped this proffer with avidity and calling on the priest, threatened him with a public scandal, unless he retraced his statement that she was a natural child. He had never made this statement and begged her to calm herself. He told her that she had imagined things that had never occurred and asked her not to raise a scandal by leaving his parish.

Speaking of this, she said: "I promised to continue my confessions in his parish only to please him, and I always went to another priest for my real confession."

She was quite convinced, evidently, that the priest continued injuring her reputation and she interpreted every incident as meaning that the priest was making known the fact that she was a natural child. Thus, one day, the janitor came up with a man to show him the patient's apartment that was to be vacated by her,

and the patient immediately concluded that the priest had sent the man to see how a natural child lodged. She even imagined that the man had said to the janitor, "she is well cared for, the natural child," and that he shook his head as he noticed her wardrobe. She further interpreted this to mean that she was suspected of living with her nephew.

She was now quite convinced of the priest's duplicity and decided to avenge her honor. She bought a revolver and perfected a plan to kill him. She called to see him at his church and had a talk with him. Although she was somewhat excited and talked in a loud voice, she used respectful language. She reproached him for his duplicity and he tried to convince her that she imagined all this. She refused to be convinced, however, and the priest, fearing that she would create a scandal in church, promised to call on her, as she requested him to do. It was decided that he should call to see her at 11 A. M., January 11, 1895.

As he came into her apartment at the appointed time, she immediately asked him to sign some papers, explaining that nothing except a written retraction of his statements injurious to her reputation would satisfy her. The priest refused to sign.

"I then pulled out my revolver and shot him," she says.

He fell dead on the spot.

She changed her dress that was dripping with blood, went to her new confessor and told him that she had killed the priest.

The statement was made in such cold blood, with such selfpossession that he refused to believe her. He accompanied her, to her room, however, where, on seeing the corpse, she explained:—"I have avenged myself; he did me a great wrong."

She was arrested and after due investigation, declared irresponsible. She was finally brought to the Admission Bureau. Here, she remained calm and unconcerned for months after the murder. It was a long while before she admitted that she had committed a frightful deed. In the course of time she learned among the patients that it was essential to be careful in making statements and she distrusted everybody about her. As she learned that her deed was looked upon as an enormous crime, she gave a somewhat different interpretation of her motive. She now said that she had directed the muzzle of her gun with the intention of killing herself, and that the priest had hit her on the hand while she was pulling the trigger; this caused the bullet to enter the priest's body. His death was entirely accidental, she explained.

At times she becomes excited and accuses the physician of being in league with the Procureur of the Republic and of having a common interest with him in keeping her in confinement. She is

not given the freedom of defense, she claims, and she could prove her innocence were her documents restored to her.

The study of cases like that above cited throws a great deal of light on the question of legal responsibility or non-responsibility of subjects committing murder by premeditation. Thus, although the patient above described committed murder while in full possession of consciousness and after a long period of premeditation, she is irresponsible from the psychiatric standpoint. And, indeed, she was legally acquitted of the murder she had committed. In connection with cases of *persecute-persécuté*, it is not amiss to mention the variety of mental derangement known as *folie à deux* as that, also, is apt to come to the jurist's notice.

The peculiar trait in such cases is the fact that a sane person, easily susceptible to suggestion of ideas, is apt to commit murder planned by the insane person and suggested to the sane person. In such cases the insane person is generally afflicted with delusions, hallucinations or delusional interpretations and the so-called sane person is most frequently afflicted with mental debility. The two following cases are illustrative of such an occurrence,—the mother borrowing the delusional conceptions of her daughter—a *persécutée-persecutrice* and attempting to carry out the latter's insane plan.

Case X represents the daughter, another clinical picture of what is termed *persécutée-persécutrice*. The mother of this patient,—case XI,—suffered from a mental derangement known as *folie à deux*.

Case X.—*Mental Degeneracy with Illusions, Hallucinations and* is termed *persécutée-persécutrice*. The mother of this patient,—case *Her Imaginary Enemy.—Perversion of the Instincts*.

B. K., 25 years old, entered the Admission Bureau on April 4, 1894. The history is given by the patient herself. Her ideas of persecution set in when she was twelve years old. At that age she was sent away from school for immoral conduct and for perversion of the sexual instinct. She claims that this accusation against her was unfounded. According to her own account, however, she was sent away from many schools for the same reason. She claimed that she was being unjustly persecuted. She communicated this false idea to her mother, who is afflicted with mental debility. According to the patient's account, rumors derogatory to her character were circulated by all who came in contact with her, and these rumors prevented her obtaining employment. While wandering from place to place, trying to obtain employment, she passed the Avenue du Bois de Boulogne, Paris, and sat down on a bench. As she sat there, she heard some passers-by say that she was the

daughter of the then Prince of Wales. This remark was made by different persons. Once some people sat down beside her on a street bench and said that she belonged to the royal family of England. She also imagined that one of the leading actresses in Paris was fond of her and was anxious for her visits for unspeakable purposes. She declared that she was attracted by magnetism and hypnotism into the boudoir of this actress and that the actress transported her from the boudoir into the street by means of the same forces, so that the patient did not know how she got into the boudoir or out of it. As she was thrown out of employment from every place where her character became known, she conceived the idea that the actress above mentioned was responsible for this misfortune. She even imagined that the actress employed her own niece as a spy to steal the patient's letters from the post-office. This condition of affairs became intolerable to her and she sent a letter to the commissary of police, threatening to kill the actress. The patient was then arrested and was brought to the Admission Bureau.

At the asylum her conduct was intolerable and immoral, so that she had to be carefully watched and isolated from the other patients. She resented this strict supervision and threatened to kill the chief physician. For two weeks she refused to eat, claiming that she could live without eating. She very probably ate when not observed, because she exhibited no signs of starvation. She accused all the attendants, supervisors and physicians of conspiring against her. She vowed to kill the actress and the chief physician as soon as she secured her release from the asylum.

Case XI.—*Mental Debility with Ideas of Persecution.—Delusional Interpretations Communicated to Her by Her Daughter, B. K.*

C. M. is B. K.'s mother. She is 58 years old, and entered the Admission Bureau, on February 14, 1898. The patient gives her own history.

The trouble began when the patient's daughter, B. K., was 12 years old. She was sent away from various schools because of her immoral conduct. The accusations against her were groundless. *It was her daughter who told that these accusations were unjust.* When 16 years of age, her daughter was sent away from a school she was attending, the directorice of the school telling her that she was a "pestilential creature" and that she was unfit to live. This child then entered another school, from which she was excluded and told that she was unfit to associate with the other children. She then took employment as salesgirl in a well known

dry goods store in Paris, but was sent away from there after the first day of her services. The girl then worked at home with her mother and both enjoyed their work and mutual friendship. When the girl walked out in the street, however, she heard people call her and her mother disreputable names. The child communicated this to the mother, who vowed vengeance on any one who dared thus libel two hardworking people,—mother and child. The daughter then complained to her mother of the various other persecutions to which she was subject and bitterly denounced the actress mentioned in the preceding case. The mother took this matter to heart and explained to her own satisfaction the manner in which this actress came into play:—a certain Mrs. C., whose children attended the same school as did her daughter, was acquainted with the actress mentioned above, and prejudiced her against her daughter. This was intolerable to the mother and she now became, in her turn, subject to illusions and delusions; she heard people in the street call her obscene names. She also claimed to have received a letter from the actress in question, inviting her daughter to call to see her for immoral purposes. The mother immediately answered this letter, telling the actress to let her child alone. She also threatened her with a legal proceeding.

The patient frequently visited her daughter at the asylum and easily borrowed her daughter's delusions of persecution. Thus, she vowed vengeance on the actress and on all other persons whom her daughter designated as being her persecutors. The main aim of her visits to her daughter was to arrange plans for vengeance on the persecutors. While collecting information from her daughter she also watched those about her, fearing that she, too, would be committed to the asylum. On some days she abstained from her usual visits to the asylum, disguising her plot by writing sensible letters of advice to her daughter, to be delivered at the asylum. Meanwhile she wrote a letter to the head of police, demanding that he procure her a certain sum of money from the said actress. If he did not procure the sum demanded, she stated, she would wait at the door of the actress's theatre and shoot her on sight as she came out to enter her carriage. The patient was then arrested and finally brought to the Admission Bureau.

At the asylum she used diplomacy in order to obtain her discharge. Thus, she said: "I can reconcile myself to the fact that my daughter must be an inmate of an asylum, because she threatened to kill the actress X. But why should I be deprived of my liberty, when I have made no threats?"

While thus declaring her innocence, she managed to send some more letters to the actress, accusing her of causing the ruin of her

(the patient's) daughter. Conversing about this matter, she said that she had no intentions of harming the actress; she only intended to avenge her daughter and to legally prosecute the actress for the wrong she had done to the girl. She then declared that she had not written any threatening letter. It was the actress herself, she explained, who must have written the letter in question and sent it to the police, in order to have the patient arrested, so that she might "put an end to the notorious proceedings that the actress had reason to avoid, considering her treatment of my daughter," she declared.

The patient seemed to have some hallucinations while she remained in the wards, as she imagined having heard the physician threaten her with incarceration in a cell. She was forbidden to communicate with her daughter and her condition soon improved. She admitted that her daughter was insane and was rightfully placed in the asylum. She made some feeble defense of her daughter's morals, but when proofs were shown her against her daughter's character she admitted being wrong in her defense. After a prolonged stay in the asylum she became free from delusional interpretations.

It was remarked in the introduction to this paper that the clinical side of the question here considered would be presented schematically, so to speak. The jurist can use typical cases here cited as standard examples to which he can compare other morbid cases not described here, but that may come under his consideration.

The deed of homicide, whether enacted on a royal person or on an ordinary citizen, under the influence of psychic conditions here described, must come under the same jurisdiction. The proper administration of justice in such cases rests entirely on an intelligent understanding of the culprit's mental status.

(To be continued.)

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AN INTERNATIONAL PROGRAM FOR THE STUDY OF PSYCHIATRY.

An international unification of terminology as applied to mental diseases would indeed be welcomed by the psychiatric world. Dr. J. Roubinovitch gives the outlines, in the *Bulletin Medical*, No. 83, 1902, of an international program for the study of psychiatry that would tend to bring about the desired unification. In the plea for a unification of psychiatric terminology it is claimed that the cause of the diversity of the same is due to the fact that the diagnosis of mental diseases is based on their forms—their syndromic phases rather than on their causes. Thus, when a case presents a certain complexus of symptoms consisting of mental excitation, incoherence of speech, disorder of movement, illusions and various hallucinations with accompanying fever and bodily wasting, it is designated in France as being one of mania or mental confusion, in Germany it is called amentia or *hallucinatorische Wahnsinn* and in the English speaking countries the syndrome is termed delusional stupor. In the respective countries these syndromes are described as so many morbid entities. The great error lies in this method of differentiation.

Indeed, the author says, these so-called distinct diseases, designated by so many various names, represent in reality so many syndromes differing from one another by some slight detail more or less predominant in given cases. The real disease, however, is not the syndrome but the viciated nutrition of the system, due to hereditary, acquired and other causes that led up to the manifestation of the syndrome. As an illustration of the proposed international program of study the author gives the following example: when a case presents itself, showing excitation, impaired memory, clipping of words, tremor of the tongue and absence of pupillary reflexes to light, we conclude that we are dealing with a syndrome known as general paralysis. The excellent works of Widal and his pupils and of Joffroy and his pupils have enabled us to add to the above cited syndrome an anatomical sign—an exaggerated amount of lymphocytes in the cerebro-spinal fluid. With all this knowledge, however, leading us to the inference that we are dealing with a syndrome known as general paralysis, the diagnosis of the disease is not complete without the indication of the cause of the disease. If we accept the statements of some authors that syphilis is generally the cause of the disease and add this information to that contained in the description of the syndrome general paralysis our diagnosis becomes a truly medical diagnosis based on the following analysis: examination of the symptoms, construction of the mental syndrome based on the presentation of the symptoms and, finally, the search for the cause of the trouble or, in other words, the search for the initial disease that actually caused the syndrome to take place. This causative disease may be an infection or an intoxication, and either may be congenital or acquired.

It is well known, the author goes on to say, that heredity and intoxications are the causes of many psychoses, and these two great factors may be called *causes of causes* in psychiatric diseases. He lays much stress on the fact that the various physical diseases are at the root of the genesis of psychiatric disturbances and that we are in a position to so conduct our studies as to be able to point out certain psychoses that are always caused by certain diseases. Thus we should be enabled to speak of alcoholic, pellagrous, typhoid, syphilitic, uremic, diabetic and other psychoses. The author concludes by saying that alcoholic, pellagrous, typhoid, syphilitic, uremic, diabetic, tubercular and other infections are cosmopolitan and are the same in all the countries where disease is known. If, therefore, we can study psychiatry according to the program outlined above, our program becomes international in nature for obvious reasons.

The proposed unification of study of psychiatry is indeed seductive in its apparent possibilities; it is questionable, however, whether the subtle nature of psychiatry will lend itself to such concrete handling as is above outlined. The author's own example, indicating the manner in which a proper diagnosis should be made, as is now possible of realization in general paralysis, according to his belief, does not stand criticism. Thus, he advocates, and very wisely, that we do not stop at the knowledge of the syndrome general paralysis, but that we search diligently for the cause and concludes that the cause is, in the majority of cases, syphilis. As a matter of fact, however, this statement is not true to clinical observation. The statement is wrong not only from the standpoint of general reasoning, but also from the standpoint of minute clinical observation. From the standpoint of general reasoning it is truly claimed that not all cases of syphilis become afflicted with general paralysis and not all cases with psychiatric predisposition need necessarily become syphilitic before they become general paralytics. Under these conditions it would seem wrong to conclude that the diagnosis of the syndrome general paralysis is syphilis. The same fate befalls the advocates of the specific virtues of alcohol in the genesis of general paralysis. The Physician of Ste-Anne has well crystalized these notions in his *Recherches sur les centres nerveux*, and has adduced ample arguments to show that psychiatry cannot be handled within the narrow limits of physical causes as they are regarded in general medicine. Dr. S. Greidenberg has concretely demonstrated the same truth in an excellent study of general paralysis, entitled "Progressive General Paralysis According to the Studies of the Kharkoff Zemskoi Hospital, During a Period of Twelve Years (1890-1901)," published in this Journal, Vol. IV, Nos. 1, 2 and 3, 1903. Treating of the relative proportion of cases of general paralysis in the Kharkoff and in the Simpheropol hospitals respectively, he says, in part: "In Kharkoff the percentage of syphilis in men is much less than is that in Simpheropol, the difference being 11 per cent. In women, on the contrary, syphilis is a more frequent cause in Kharkoff, exceeding that in Simpheropol by 9 per cent., and yet the number of cases is almost twice less here." He finally demonstrates that the causation of general paralysis is quite complex and that the disease is due to an intricate combination of causes.

The theory of concrete causation of syphilis is further upset by the excellent study of the question by Prof. L. Bianchi, as presented in this Journal, Vol. III, No. 1, 1902. He shows not only that statistics regarding syphilis as a cause of general para-

lysis, as furnished by various authors, range between 1.6 and 94 per cent., but also proves beyond doubt that the causation of general paralysis is far too complex to be grasped by those who eagerly seek to fix on some concrete genesic cause of the disease. Indeed, how will our colleagues of "concrete" tendencies explain the curious report made by Prof. Bianchi, of Naples, regarding the social distribution of general paralysis? He says in part: "Almost all prostitutes are syphilitic, yet general paralysis is a rare disease among them. Their number is quite large in Naples, yet it is difficult to find general paralytics among them. Married women, however, very frequently suffer from the disease, whether they are syphilitic or not." He justly concludes that although the anatomo-pathology of general paralysis always remains the same—showing the results of a slow death of the nervous system, it cannot be said that either syphilis or any other intoxicant agent has a specific action in the causation of the disease.

From what has been said above, it is evident that even in the case of the psychosis best known to us as regards its anatomo-pathology, the attempt to incriminate one particular physical cause, or to make a medical diagnosis in the sense explained by the advocate of the international program for the study of psychiatry, is futile. The difficulty in handling psychiatric manifestations arises from the subtleness of their natures and their various as well as varied origins. Indeed, if we revert to the subject of general paralysis, we find that not only are its causes many and complex, differing in different localities, individuals and surroundings, but that its very syndromic form is said to undergo a change. Dr. Greidenberg remarks in the article above mentioned that in the Kharkoff hospital, the classic features of general paralysis are becoming more and more replaced by demential manifestations,—a substitution that has been observed in many other hospitals. It seems reasonable to suppose, therefore, that this peculiar substitution is due to some subtle individual changes caused by our social and economic changes. It is reasonable to admit, consequently, that in our research into the causation and treatment of insanity we should become far broader than we have been heretofore and extend our searchlight beyond the limits of the hospital ward—we should study the relation of social and economic conditions to psychiatric manifestations.

The suggestion of establishing an international program for the study of psychiatry is an excellent one: it is bound to broaden our views on the subject that interests us and to help us become broad enough to handle the science of psychiatry.

COMMUNICATION.

DR. DEDICHEN, editor of *Tidsskrift for nordisk restsmedicin og psykiatri*, writes as follows:

"*Dear Colleague*:—I have read with much interest the communications of various physicians of hospitals for the insane, regarding the employment of women attendants in the wards for insane men, published in Vol. III, Nos. 4 and 5, of your JOURNAL, and I wish to relate my own experience in this line of work.

During the last twenty months, I have been employing women attendants exclusively for all my patients in my private hospital for the insane. When I first made this departure in the attendance of the insane men, the medical authorities of my country looked aghast at it. The main reason of their dismay was that this method was new and had not before been practiced in Norway. I remained true to my new departure, however, and have had the satisfaction of living to see the triumph of my innovation. Indeed, experiments on the utility of the woman attendant in the wards for insane men are now being made in my country in the Government hospitals for the insane.

I wish to remark that I am indebted to Professor Pontoppidan, of Copenhagen, who was the first to show me this new system in practical operation. After my visit to his wards I decided to employ women nurses in the wards for insane men.

I state without any hesitation that nursing by women far surpasses that of men. It would be most desirable, indeed, to employ women nurses exclusively in the men's wards in the public asylums. Unfortunately, some men attendants must be retained in the wards, because the use of purely physical force becomes necessary now and then among the violently insane men. For the present, I still employ a large number of male attendants in the male wards of the public asylum, but am considering the advisability of giving the women attendants complete charge of these wards.

I have found the women nurses most helpful and willing to do the work required in the men's wards. They bathe the patients and attend to other wants. When any scruples arise, the Directress explains to the nurses the dignity of their positions and instils into them the fact that whatever aid can be brought to these patients should be done with a feeling of solemn devotion."

Signed by Dr. Dedichen.

Christiania, Norway. May 12, 1903.

A TUMOR OF THE BASE OF THE BRAIN.—DR. MUG-GIA: A tumor involving the frontal region of the base of the brain ran its course without being diagnosed during life. During the last four years of his life the patient had two attacks of mental confusion at two different times. The first time, in 1898, the main symptoms were those of gastric disturbance, diffuse edema, emaciation and fecal and urinary incontinence. It was supposed that the disease was due to malarial infection and the patient was treated accordingly. He made a good recovery in the course of a few weeks. March, 1901, he was again brought to the hospital. He was suffering from disturbances similar to those that characterized his first attack of illness. His condition improved under general treatment. January, 1902, weakness in the lower limbs set in suddenly. The morning following the patient was found in a comatose condition. The head was turned to the left and the muscles of the neck were markedly rigid. The lower facial nerve seemed to be paralyzed, the left forearm was flexed upon the arm and the muscles of both were markedly rigid. The lower limbs and the right upper limb could be handled without any difficulty. There were no convulsive movements of any kind. The knee reflexes were abolished on the left side and slightly exaggerated on the right. The patient died at two o'clock of the same day.

The autopsy showed the presence of an abundance of bloody fluid in the cranium, the dura mater was adherent in some parts and the pia mater was opaque and adherent to the convolutions. The brain was voluminous and weighed 1,795 grams. The convolutions were macrogyral and flattened, especially in the frontoparietal regions. Anteriorly, the brain was adherent to the skull by means of a large tumor that weighed 102 grams. The growth sprang from the dura mater, covering the cribriform plate of the ethmoidal bone and the lesser wings of the sphenoidal bone. On section, the tumor was elliptical in shape with its largest diameter directed antero-posteriorly. The anterior pole of this diameter was 15 mm. back of the anterior cerebral pole and the posterior pole of the diameter was 20 mm. front of the optic commissure. The gray substance in the vicinity of the tumor was destroyed and the white substance was compressed, involving the middle two fourths of the *gyrus rectus*. The olfactory convolutions were pushed outward. A sagittal section of the tumor showed that there was marked compression of the *gyrus fornicatus*, particularly the part called *gyrus subcallosus*. The compressed gray matter was pale, but its consistency was normal. The tumor was easily enucleated, had a rough surface, was elastic and hard to touch and of dark red color.

The ventricles contained a large quantity of clear serous fluid. The basal nuclei, the peduncles and the cerebellum were normal. In the left side of the pons was a focus of softening of recent date, three mm. in width. This lesion did not extend beyond the median line. There was no trace of any lesion in the floor of the Fourth ventricle. The arteries of the base of the brain were markedly atheromatous.

According to some observers, sudden obliteration of a large cerebral vessel may account for clinical symptoms similar to those described in this case. The autopsy did not reveal, however, any signs of vascular obliteration. The lesion of the pons may be looked on as being the cause of the sudden disturbances; but the sudden onset of all the symptoms cannot be explained by the fact of the existence of this lesion. It is difficult to explain why the affected limbs and the lesion of the pons were on the same side; a histological examination did not reveal any extension of the morbid process. Darolles has reported a case of a focus of the pons and impairment of the function of the limbs on the same side (*Riforma Medica*, No. 72, XVIII).

DOLORIFIC ASYMMETRY. — Drs. J. IOTEYKO and M. STEFANOWSKA: Almost all the sensory organs are asymmetrical. The right side of right-handed persons is favored not only as regards the muscular force, but also in reference to the general and special sensibility (touch, muscular sense, hearing and sight). In left-handed persons the left side has the enumerated advantages. According to Van Biervliet, the proportion of sensibility of both sides may be expressed as 10:9, ten representing the sensibility of the stronger side. According to the above mentioned author, the sensory tracts decussate, consequently the left cerebral hemisphere is stronger in right-handed persons and the right hemisphere is stronger in left-handed persons. The authors of this article undertook to find out whether the sense of pain reacted on the respective sides in a manner similar to that proper to the other senses. We are reminded of the fact that the cutaneous surface is the organ of four distinct senses: 1, touch and pressure; 2, heat; 3, cold, and 4, pain, each sense having its corresponding area in the skin and their respective special nervous terminations, the tracts and centres of which still remain unknown. The authors conducted their experiments during a period of three years. The subjects used were mostly University students and numbered 52. The following are the results obtained:

Two persons were insensible to pain.

1. Three persons were more sensitive on the right side, but this can be said with certainty only regarding one of them.

2. Forty-seven persons were more sensitive on the left side. This number applied to both the right- and left-handed persons. The measure used in the experiment was as follows: A specially arranged needle had to penetrate into the skin at a depth of 16.0 tenths of a millimeter on the right side and 14.2 tenths of a millimeter on the left side to cause the same amount of pain. This proportion is pretty nearly equal to that of the other senses, which is 10:9. The point of interest is the fact that the left side is the more sensitive to pain. This proportion is the same as that found by Van Biervliet for the muscular, auditory, visual and tactile sensibilities. While the proportion of various sensibility is reversed in left-handed persons, it remains the same in reference to pain. This condition can be expressed by saying that we are all left-sided in so far as the sensibility to pain is concerned. This left-sidedness is also true in regard to the *quality* of the pain: not only is the pain more marked, but the instrument also seems to the subject to be sharper.

These experiments show that the centre of pain is not the same as that of tactile perceptions. It may be supposed that there exists a special centre of pain. A point of interest in this connection is the fact that in unilateral analgesia of hysterical subjects the left side is more frequently affected. If this fact were demonstrated beyond doubt it would be legitimate to conclude that hysterical subjects are more sensitive on the right side, while normal subjects are more sensitive on the left side. This would be an additional diagnostic point (*Jour. de Neur.*, No. 8, 1903.)

EXPERIMENTAL RESEARCHES IN CEREBELLAR FUNCTIONS.—DR. VERZILOV: Willis considered the cerebellum as the seat of organic functions. Various authors ascribed to this organ various other functions. Flourens gave the most characteristic description of these functions; according to him, the cerebellum is the seat of equilibrium. Magendie considered it the seat of locomotor impulses. Gall and Serres claimed that it was the center of sexual sensibility. Others consider it as being the center of muscular sensibility. Others, again, claim that it is the center of general sensibility. According to Luciani, cerebellar ataxia consists of three elements; asthenia, atonia and astasia. The English authors, with Vulpian, still insist on the sensory role of this organ. Courmont and Fallet claim that the cerebellum is the seat of psychic sensibility.

Yet, the knowledge regarding the function of the cerebellum as obtained by experiments is simple and explicit. The obscure side of the question is the knowledge concerning its functional relation to the other parts of the nervous system. The transition from experimental to the clinical phenomena and the clinical phenomena themselves are also obscure.

The following are the conclusions from the author's experiments on separate parts and the whole of the cerebellum: The heightened irritability relates to the motor and psychic spheres.

1. Impaired motor equilibrium of all the movements is caused by extirpation of the middle part of the cerebellum or of the entire organ. Extirpation of one hemisphere causes impaired equilibrium on the same side.
2. This impaired equilibrium depends apparently on the loss of the power of co-ordination.
3. This impaired equilibrium is only of a transitory nature. Even when the whole cerebellum is removed, this disturbance subsides, or may remain only to a most insignificant degree.
4. Alongside with this disturbance there exists also a peculiar muscular weakness; this weakness sets in after the disappearance of the spastic trouble and persists exactly as long as the disturbed equilibrium lasts.
5. It is impossible to say whether the impaired co-ordination depends in any way on the muscular weakness.
6. Pendulum-like movements of the head exist during repose and are exaggerated during voluntary movements, giving an impression of being forced movements. It is difficult to agree with Luciani that these movements depend on compensatory action of the cerebrum after extirpation of the cerebellum.
7. Extirpation of the whole cerebellum or of its parts causes exaggeration of reflex excitability.
8. All these disturbances are in direct relation to the part of the cerebellum extirpated. The right cerebellar hemisphere causes disturbances on the right side and extirpation of the left hemisphere on the left side. Extirpation of the middle part of the cerebellum, or the vermis, causes disturbances on both sides of the body.
9. Extirpation of the cerebellum has a marked influence on the general condition of the animal. Marked exhaustion characterizes these animals, and this exhaustion is often the direct cause of death.
10. In the psychic sphere of these animals there was an exag-

gerated alertness or else unusual tenderness; at the same time, they were fretful and fearful (*Journal Imeni S. S. Korsakova*, fasc. 1-2, 1903).

HEMORRHAGIC ENCEPHALITIS WITH ESPECIAL REFERENCE TO ITS TUBERCULAR FORM.—DR. BOMBICCI: In cases of encephalitis, the gray matter is more frequently involved than is the white matter. Polioencephalitis is, therefore, the proper term to be used for designating this inflammatory condition, in which leucoencephalitis is only exceptionally applicable. The cortex and the ganglia are more frequently affected than are the accessory parts of the brain. For this reason the principal forms of encephalitis may be grouped into cortical and central encephalitis. Microscopically, encephalitis is distinguished by new vascular formations, exudations and capillary hemorrhages. The tissues of the new vessels are particularly of low formation and are easily ruptured by changes in the vascular tension. The nervous cells of the ganglia are distinguished by being particularly resistant to phlogogenic agents; they remain intact, therefore, in a large number of instances of encephalitis. This fact accounts for the absence of motor and sensory disturbances in cases of inflammatory focuses in the ganglia; the same fact also explains the possibility of recovery from disturbances caused by encephalitis even when the disease is characterized by grave functional impairment. Granular cells, or cells of Kluege, are very rarely found in encephalitic focuses, while their presence in focuses of softening is of frequent occurrence. The author agrees with other investigators that encephalitis most frequently coincides with infectious diseases. This does not excluded the possibility of the existence of independent forms of the disease in which infection and alterations of other organs are responsible for the encephalic disease. Tuberculosis is, beyond doubt, the most frequent cause of encephalitis. Thus, the existence of a single caseous adenitis may be the only tubercular manifestation and encephalitis the consequent disease (*Rivista Sperimentale di Freniatria*, Vol. XXIX, fasc. 1-2).

DORMIOL AS A HYPNOTIC IN MENTAL DISEASES.—DRS. GONZALES AND PINI: Dormiol is a dimethyl-ethyl-carbinol-chloral and is a valuable hypnotic in nervous and mental insomnia, especially when the other hypnotics, vaso-depressive in action, are contra-indicated (*Rivista Sperimentale di Freniatria*, Vol. XXIX, fasc. 1-2).

PECULIAR DISTURBANCE OF THE APPRECIATION OF TIME IN A CASE OF GENERAL PARALYSIS.—DR.

VOROBIEV: The case analysed is one of ordinary general paralysis with excitation, refusal of food, etc. The disturbance of the appreciation of time related at first to the hour of the day, the patient imagining in the evening that it was still eleven o'clock in the morning. This delay in the count of time gradually increased, so that September 29, the patient thought that it was still September 28, thinking that only one half hour had passed since eleven o'clock of the preceding morning. September 30, he thought that it was still September 28, but noon time. He then added one half hour for every twenty-four hours that elapsed, so that October 15, the patient had advanced in his count of time to seven or eight o'clock of the evening of September 28. He thus kept up his count until he reached the midnight hour. As he slept during the night, he did not advance farther than September 29 for many days after. He admitted that his calendar differed from the one generally accepted and at times gave rather witty explanations of the reason of his peculiar method in counting time. His appreciation of time otherwise was good. He knew that dinner lasted about one hour, could give a detailed chronological account of incidents that had taken place during the ten weeks of his stay in the hospital, his memory was good. December 6, he promptly recognized a professor whom he had seen the preceding first of October, remarking that he had seen him once before—this morning. His memory is excellent in regard to remote incidents, but speaking of incidents that had occurred four days previously he said that they had taken place two hours previously.

The author considers that the patient's trouble in measuring time was not due to delusions, but to a special disturbance of the senses of appreciation of time.

Animals and even fishes have an appreciation of time and know the hours when they are fed. It is reasonable to suppose, therefore, that gastric sensations have some connection with the sense of appreciation of time. If this supposition were true, it would explain why the aberration in the appreciation of time in the above mentioned case coincided with his refusal to partake of food. It is true that the patient suffered from the same aberration when he resumed to eat voluntarily, but the swallowing of food does not necessarily imply that the stomach was in normal condition. It is possible that there exists a cerebral centre of sensations having some connection with the sense of appreciation of time (*Journal Imeni S. S. Korsakova*, fasc. 1-2, 1903).

MODIFICATIONS OF THE SUBARACHNOID PRESSURE AND THE NATURE OF THE CEREBRO-SPINAL FLUID IN EXPERIMENTAL EPILEPSY.—DR. D'ORMEA:

Under normal circumstances, the sub-arachnoid pressure is even, presenting slight oscillations in relation to the cardiac systole and the respiratory movements.

During an epileptic attack, on the contrary, there is a sudden and marked augmentation of this oscillation, its maximum taking place during the tonic phase or during the first part of the clonic one; during the latter phase, the amplitude of the oscillation gradually decreases in an irregular manner.

The amplitude is proportionate to the gravity of the attack, is at its maximum after the second convulsion and gradually decreases with the convulsions that follow. At the end of the attack, the amplitude is proportionate to the gravity of the last convulsion.

During the *status epilepticus*, the oscillations are irregular, presenting abrupt and marked changes of amplitude.

During the normal state, the cerebro-spinal fluid is perfectly clear, colorless and runs out uniformly and evenly. During an attack, on the contrary, the fluid becomes turbid, of a red color, more or less marked, according to the gravity of the attack. These characteristics persist for a long time after the disappearance of the convulsive manifestations. The fluid spurts out with a certain rapidity and its alkalinity is changed.

At the end of the attack, the fluid stops running out for a short while, if the attack was slight in degree, and for a considerable length of time, if the attack was a severe one.

The above described modifications were observed in epileptiform attacks caused by electric irritation of the cerebral cortex as well as by intra-venous injections of essence of worm-wood. The phenomena were more marked in cases subjected to experiments with the essence (*Rivista Sperimentale di Freniatria*, Vol. XXVIII, fasc. 1).

ON THE RELATION OF INTRACRANIAL PRESSURE TO THE PHENOMENA OF BULBAR COMPRESSION.—

DR. ZERI: Abstraction of the cerebro-spinal fluid at the point of the occipito-atloid articulation was not followed by any marked changes in the circulation and respiration. Compression of the medulla oblongata was followed by slowness of cardiac pulsation; removal of the compression was followed by marked acceleration of cardiac pulsation. The respiration was markedly accelerated at first and finally stopped by compression of the medulla. The

phenomena caused by increased pressure in the Fourth ventricle are similar to those caused by increased intracranial pressure in general. Compression of the cerebral convolution causes respiratory depression. The respiratory acceleration caused by compression of the medulla is similar to that observed in cases of acute anemia. The effects of the compression are probably due to conditions of mechanical anemia of the nervous tissue. Excitation and compression of the cerebral cortex causes respiratory inhibition. This difference of effects produced by compressing the medulla and cerebral cortex respectively cannot be used as a diagnostic criterion because isolated compression of the medulla may also induce slow respiration. Compression did not cause generalized convulsions. If there exists a convulsive centre in the medulla, it is difficult to understand why it was not affected by its compression, when the cardiac, respiratory and vasomotor centres were considerably affected (*Rivista Sperimentale di Freniatria*, Vol. XXIX, fasc. 1-2).

EXPERIMENTAL RESEARCHES IN THE EMOTIONS.

—Dr. L. MARCHAND: The various emotions are not caused by organic changes. In order to influence the emotional condition organic changes must be sudden in action. A continuous vasomotor condition does not affect the emotions, as witness in exophthalmic goitre or in persons with permanently slow pulses. Physiological experiments made during various emotional states of patients show that there is a certain relation between the emotions and the corresponding respiratory and circulatory conditions. The observation of the cases studied showed, however, that the mental state preceding the emotion practically shaped their emotional conditions. If organic disturbances were in any way directing agents of emotional conditions there would exist a certain relation between the intensity of the emotion and the peripheral disturbances. Mental exhilaration and depression would be caused by special peripheral disturbances. It is well known, however, that marked peripheral disturbances may exist without causing any emotional condition. A sudden onset of peripheral disturbances may bring about an emotional condition, but it is the mental process caused by this onset that is responsible for the emotional state. (*Revue de Psychiatrie*, t. IX, No. 4.)

From *Revue de Psychiatrie*, No. 6, 1903.

1. THE EVOLUTION OF PSYCHIATRY.—DR. PIERRE PREGOWSKI: Psychiatry has become a clinical science. The following are three fundamental points showing the clinical trend of psychiatry:

1. Different mental states (depression, agitation, stupor, etc.) are not considered as being different affections, but as symptoms or as periods of a certain form of mental disease.

2. Symptoms are considered in relation to their onset, course and termination. The clinical form of the disease is based on this relation.

3. This method enables the clinician to differentiate the various symptoms and to assign them to their respective causes. Thus, for instance, the symptom mental depression may be found in melancholia, in dementia precox, in general paralysis, etc., but the causes of the respective diseases differ one from the other.

2. THE VASO-MOTORS IN PSYTOPATHIC DISTURBANCES.—DRS. N. VASCHIDE AND CL. VURPAS: In general paralysis the first phase is characterized by vascular constriction. This phase is soon followed by one of vascular dilation. This dilation is characteristic of the cachectic stage. Vascular constriction characterizes the melancholic states. In the majority of cases of the systematized deliriums the mental status of the respective subjects influences the condition of the vaso-motors. The latter are normal in epilepsy. Idiocy, generally accompanied by motor disturbances, is characterized by vaso-dilation. The authors think that a methodical knowledge of the above described vascular conditions is useful when treating patients presenting psycho-organic disturbances.

3 ALCOHOLISM AND THE DEGENERATE.—DR. DE M. JERONIMO GALIANA: The hereditary degenerate react in a peculiar way when addicted to alcoholism. These alcoholists are generally intoxicated to a marked degree and their longing for alcohol is more acute than it is in the ordinary alcoholist. In the degenerate the stage of intoxication presents certain peculiarities and this drunkenness is designated as pathological. Attacks during acute intoxication resemble epileptic attacks from more than one standpoint. The mental disturbances are more accentuated in the degenerate than they are in the ordinary chronic alcoholist. Terminal dementia sets in earlier in the degenerate than it does in the ordinary alcoholist; the motor sphere, however, is apt to remain intact in the degenerate. Alcoholism accentuates the mental anomalies in the degenerate. Alcoholism increases the number of attacks in the epileptic. In predisposed subjects alcoholism always excites the onset of alcoholic insanities. The author agrees with Dr. Magnan that alcoholism does not cause true epilepsy in the alcoholist, but that it acts as an exciting cause in subjects predisposed to epilepsy.

4. ATMOSPHERIC HYGROMETRY AND GENERAL PARALYSIS.—DR. OTS: Atmospheric humidity hastens considerably the course of general paralysis. In localities with dry climates, such as Madrid, Spain, the course of general paralysis is more protracted, while in localities noted for atmospheric humidity, as the Biscaye provinces, the course of the disease is rapid, the affection ending in its acute stage without showing any periods of remission.

5. TOXIC AND INFECTIOUS INSANITIES.—DR. MANUEL IGLESIAS: Intoxications and infections are the principal pathogenic elements in these insanities. Chronic alcoholism is the most frequent cause in the genesis of toxic insanities and of criminal insanity. Society and the various Governments should combat the spread of alcoholism by means of public education and by prohibitory measures of various kinds. The grip is a major source of infectious insanities. The typhoid diseases and syphilis are the next powerful sources of these insanities. The diagnosis, prognosis and treatment of these insanities are quite individual. The diagnosis is based principally on the physical sign expressed by fibrillary tremors of the tongue and extremities; among the psychic signs, mental confusion is most marked. In infectious psychoses of puerperal nature important and significant changes are found in the neck of the uterus. The prognosis of these affections is generally good if hereditary degeneracy is not too marked. The treatment consists of cleansing of the blood with injections. Patients with these diseases should not be confined in asylums during the periods of remission.

6. HYPNOTISM IN HYSTERIA.—DR. OTS: Hypnotism should not be used in cases of young hysterical girls. Three cases of hysteria in young girls on whom hypnotism had been used showed subsequently a marked decrease of will power, almost complete abolition of the sense of modesty that was quite marked in the patients before they had been subjected to hypnotic treatment.

7. DEMENTIA PRÆCOX.—DR. OTS: Patients who present this syndrome of Kraepelin should be grouped as hereditary degenerates in the light they have been described by Dr. Magnan. These precocious dements present the characteristics of the degenerate to the highest degree: They show defective equilibrium between their moral and intellectual faculties and a psychic instability that constitutes the true stigmata of the degenerate.

8. PSYCHIC DISTURBANCES INDISCRIMINATELY ATTRIBUTED NOW TO NEURASTHENIA NOW TO CIRCULAR INSANITY.—DR. PREGOWSKI: There is an affection accompanied by mental disturbances that is variously attributed now to neurasthenia now to circular insanity, but that is probably dependent on pathological changes of the vascular system and more particularly on a spasmodic condition of the cutaneous vascular system. The most important symptoms observed in this disease are those described below. The pulse is small and frequent and the circulation is generally impaired and expressed by cyanosis, bronchial hypersecretion, the necessity of taking deep inspirations, etc. The impaired function of the digestive organs is expressed by spasmodic constipation. The impairment of the psychic function is expressed by transitory psychic disturbances. These consist of psychic instability, such as hypertrophy of emotional reactions in regard to common events of the day, of deranged imagination, decreased intellectual capacity and, at times, of a whole train of catatonic symptoms that do not properly belong to circular psychoses.

9. DREAMS OF THE GENERAL PARALYTIC.—N. VASCHIDE AND CL. VURPAS: The aspects and forms of the dreams vary with the stages of general paralysis. During the first stage the dreams are full of mental images, but the ideas are disconnected and unsystematized. In the second stage of the disease the dreams are poor in mental images and the systematization of ideas that is present is slow of formation. In the third, or last, stage the general paralytic does not dream even at night. This shows that there is complete abolition of mentalization at this stage of the disease.

TEMPORARY CRANIECTOMY PERFORMED ON TWO CASES OF IDIOCY.—DR. PAUCHET performed craniectomy on two cases of idiocy and obtained satisfactory results in one case. During the operation, he could not find any meningeal thickening. After the operation the child became interested in its surroundings and learned to read and write during the thirteen months after the operation. The improvement was noticeable. He could speak, count, was animated and interested in children of his own age. Dr. Moulouguet also operated on an idiot child, but the results were unsatisfactory. The child was microcephalic (*Gaz. des Hop. de Toulouse*, May 16, 1903).

THE ACTION OF CALCIUM ON THE CEREBRAL CORTEX.—PROF. RONCORONI: The normal amount of calcium in the cortex is supposed to exercise a moderating influence on the nervous cells. This supposition harmonizes with the theory that epilepsy is due to a reduced inhibitory effect of the cortical layer and to a diminished amount of calcium salts in the cortical cells. The beneficial effect of a milk diet (known to be rich in calcium salts) in epilepsy is in accord with the supposed inhibitory action of calcium on the cerebral cortex. Experimental changes caused in the cerebral cells by the action of calcium chloride were similar to those caused by the application of hypophosphate salts, but the functional disturbances caused by the respective salts were quite different. On the other hand, the citrate and hypophosphate salts produce identical functional disturbances, but the cellular changes caused by these salts are quite identical. This fact justifies the supposition that the difference of the functional disturbances is due to chemical modifications rather than to anatomical changes (*Rivista Sperimentale di Freniatria*, Vol. XXIX, fasc. 1-2).

RACES AND CRIMINALITY IN ITALY.—In his analysis of the relation of race to criminality, Prof. LOMBROSO exhibits his usual erudition in dealing with subjects of sociological import. According to him there can be no doubt as to the influence of race on criminality. He proves this statement by indisputable facts observed in various sections in Italy and by the criminal tendencies of the Italians who immigrate to the United States. Of course, the origin of the Italians who immigrate to this country is taken into consideration. He further adds that criminality in races is due to an arrest of moral development. Thus, in olden days, even the wealthy citizens spent their time in brigandage. It was considered an honor to have a daring brigand related to one's family, as the following adage attests: *Que non ferat, non est homo* (*Arch. di Psich., Sc. Penale ed Antrop. Crim.*, fasc. III, Vol. XXIV).

ON THE QUESTION OF THE CEREBRO-SPINAL CENTRES, DISPOSED IN DEFINITE GROUPS CONTROLLING THE EXTREMITIES AND GIVEN GROUPS OF MUSCLES (IN THE DOG).—DR. LAPINSKI: Experiments do not confirm the theory of the spinal localization of centres governing specific groups of muscles, individual muscles or special segments of the extremities. The hypothetical centres of seeming

existence in the spinal cord cannot be termed as centres properly speaking. These would-be centres are not circumscribed, they seem to be disposed simply in cellular groups, not in columns. Although the upholders of the existence of spinal centres claim that they fully control the function of the respective muscular groups, this claim is not based on any valid facts or illustrations (*Journal. Imeni. S. S. Korsakova*, fasc. 1-2, 1903).

ROTATION AROUND THE LONGITUDINAL AXIS IN ANIMALS WITH UNILATERAL LESIONS OF THE CEREBELLUM.—DR. SERGI: The rotation is done either from the healthy to the affected side or *vice versa*. In case of incomplete lesions of the cerebellar peduncles, involving the posterior and internal parts, the movements are performed from the healthy to the affected side, while in complete lesions of the same parts the rotation is performed from the affected to the healthy side (*Rivista Sperimentale di Fren.*, Vol., XXIX, fasc. 1-2).

SPECIFIC AUTOTOXINS AND ANTI-AUTOTOXINS IN EPILEPTICS.—DR. CARLO CENI: 1. The blood of the epileptic contains a specific autotoxin as well as an anti-autotoxin. 2. This antitoxin is not soluble in the living protoplasm, but exists in the blood corpuscles in a latent state. After death of the blood corpuscles, the properties of the antitoxin become active. This fact was proven in the demonstration of the therapeutic value of the blood serum of epileptics (*Rivista Sperimentale di Freniatria*, Vol., XXIX, fasc. 1-2).

BOOK REVIEW.

LES PHENOMENES DE SUGGESTION ET D' AUTO-SUGGESTION PRECEDE D'UN ESSAI SUR LA PSYCHOLOGIE PHYSIOLOGIQUE. DR. L. LEFEVRE, *Military Surgeon*, Henri Lamartin, Brussels, 1903. One volume, 294 octavo pp., price: 6 francs. The author states himself that this work is not a treatise on hypnotism and not even a complete treatise on suggestion. Nevertheless, the volume is in substance very much more than either of such treatises would be—in the ordinary acceptance of these terms. The entire volume is free from citations of clinical cases relating to either hypnotism or suggestion, but the author's arguments are based entirely on physiological and psychological facts demonstrating that suggestibility is inherent to the soul and

that our entire individual and collective laws and regulations are based on suggestibility. In order to demonstrate this idea the author analyzes the cerebral mechanism in its anatomical and physiological aspects and explains the successive development of the various cerebral centres in order of their functional importance and psychological relation. Thus, he demonstrates that in the course of functional development formation of ideas is posterior to instinctive acts and that these acts are the result of specific cellular activity that is responsible for cerebral impressions and subsequent ideation. He finally leads on to the conclusion that what is commonly designated by the word soul is a function of cerebral localization, expanding or disappearing with the functional growth or impairment of the cell. The soul is a result, consequently, of cerebral function. If it were an independent substance, its function would persist even when the brain is diseased. The soul is not transmitted from parent to child because the soul is the result of functional perfection of the cerebral cells. Anatomical and physical characteristics are hereditary: The limbs, the organs, etc., of the embryo exist virtually in the impregnated ovum, and are, therefore, inherited in the child; but the soul cannot be inherited because it is a function of the inherited organs and a function cannot be inherited. It is further demonstrated that intelligence, memory, will-power and judgment cannot exist in the ovum in a latent state in a manner similar to that in which the physical organs exist virtually in the ovum. The major part of psychic development is based on suggestion and the intellectual development has a double origin,—natural and artificial. The natural development of the intellect depends on instinctive motives and the artificial—on suggestion. Religion, social morality, customs, etc., owe their development to suggestion. Thus, what pertains to natural development is common to all human beings (fundamental desires, etc.), while artificial psychic development—that depending on suggestion—differs according to surroundings: Suicide is punishable by law and looked on as a crime against one's own personality, while for many years the Japanese considered suicide the most direct method of reaching paradise. Individual homicide is considered as a crime, while collective homicide, accomplished by organized forces during war, is looked on as an act of glory. We strenuously opposed the introduction of railroad facilities, but having learned to appreciate their utility we consider these facilities indispensable and wonder at the opposition of the Chinese to the introduction of railroads into their country. In the drawing room the dame proudly wears her evening gown in which she would not appear on the street, in the daylight, for fear of being arrested by police officials. Re-

morse, etc., is based on suggestion. In the histories of various peoples it is found that similar acts are punishable by one and extolled by another nation. Thus, suggestion plays an important rôle in our normal psychic life that is constantly under the control of normal inhibition. Under other circumstances, when suggestion or auto-suggestion is received unquestioningly and inhibition is below par, the suggested or auto-suggested idea may triumph and produce the desired effect in a manner similar to that in which our ideas of good and bad, morality and immorality are shaped by suggestion. Thus, a person whose mentality is such that it dwells inordinately on the possibility of falling ill, may become subject to an imaginary disease by reason of suggestion or of auto-suggestion. In such persons imaginary diseases may be cured in a manner similar to that in which the disease sat in—by suggestion. While suggestion may be used as a powerful psychic agent it has its limitations: The thought suggested should be in harmony with the quality of the individual psychic mechanism, its accepted standards of the possible and impossible, morality and immorality, etc. Suggestion during sleep is based on the same principles as is that during the wakeful state. The author has fully succeeded in demonstrating the principal psychological mechanism of suggestion and auto-suggestion.

HUMAN PERSONALITY AND ITS SURVIVAL OF BODILY DEATH. FREDERIC W. H. MYERS. Longmans, Green, and Co., 91 and 93 Fifth Avenue, New York, 1903. The author tries to prove that what is commonly called the human soul is an "energy" that inhabits the body, leaves and re-enters it under various circumstances and survives the body after death. He bases his arguments on facts that came to his notice during the study of and research into the subject matter of this work. Thus, he cites instances of transference of thought from one person to another, of somnambulistic and hypnotic phenomena that proved to him the truth of his convictions—the existence of the human personality as a unit of energy that may leave and re-enter the body under specific conditions during life and may travel about after death. Numerous cases are cited in support of these views and, whenever possible, documents are cited to show the validity of the statements. Incidents of communication of thought between living beings and spirits of dead persons are also related.

The author expects dogmatic persons to judge this work harshly, but urges investigators to engage in the study of this subject that has thus far been handed to us only in the shape of religious dogmas.

The work consists of two volumes, 700 and 660 pages respectively, accompanied by a glossary and an extensive index. Price, \$12.00 net.

THE PHYSICIANS VISITING LIST FOR 1903 (Lindsay and Blakiston's). Fifty-second year of its publication. Price: \$1.00. This useful note book is neatly bound and arranged for the physician's convenience.

BOOKS AND PAMPHLETS RECEIVED.

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DIFFERENTIAL DIAGNOSIS IN CASES OF IDEO-OBSessional CONSTITUTION.

By DR. SERGE SOUKHANOFF,

Privat-docent, University of Moscow.

Among the various psychiatric affections those of obsessional nature are characteristic of themselves. They constitute the substance of the disease and owe their existence to a particular psychic constitution that may be called *constitutio-ideo-obsessiva*. I have had occasion to state elsewhere that subjects of this particular constitution are remarkable for traits peculiar to themselves. They are particularly noted for worrying, fretting and suffering from exaggerated doubts. They are unusually impressionable beginning with the age of childhood. They can go back in their memories to the days of their earliest childhood, and the facts they particularly recall are those of an unpleasant nature. These impressionable subjects develop various obsessional ideas, comprising obsessional fears, doubts, etc., and often reach a state that may be called *psychosis ideo-obsessiva*. It is remarkable that such subjects are generally kind-hearted, well behaved, sensitive morally and often fret over their invalidity because it is disagreeable to their associates. Very often these subjects suffer from hypochondriacal fear and worry over the possibility of their losing their reason. The morbid manifestations coming under the heading of *constitutio ideo-obsessiva* may be of various degrees. These disturbances may range between simple morbid fears and a condition which I call *psychosis ideo-obsessiva*. One and the same subject, however, may be affected with the disease in various degrees, according to his physical and mental conditions, his circumstances, etc. The onset of the actual disease may be so sudden that the patient and

his friends indicate a recent moment as that at which the affection began. When asked how long the disease has existed, the patient or his friends generally reply that it is of a recent date. On close examination, however, it is easy to find that the patient had always been subject to obsessional infirmities, such as fears, doubts and other morbid ideas. Even when the patient gets "well" of his acute obsessional attack and he is said to be "cured" of his present disease, he still remains subject to certain obsessional psychic processes.

To illustrate the condition I have presented above, I shall compare what I call *constitutio ideo-obsessiva* to the well recognized disease known as hysteria. There can be no doubt that the hysterical subject has a peculiar neuro-psychic organization, peculiar reactions to external impressions, characteristic psychic traits, the enumeration of which is needless to give here. The hysterical neuro-psychic organization is expressed in various ways. Firstly, it is characterized by the hysterical nature; secondly, the hysterical individual is subject to hysterical fits and he may at any time suffer from a hysterical psychosis. When such a subject is treated and becomes free, for the time being, from hysterical fits or psychoses, he is said to be "cured." His hysterical constitution, however, always remains. I think, therefore, that a complete analogy can be drawn between the hysterical character and the fretting-doubting character proper to the *constitutio ideo-obsessiva*. In both cases there are in the neuro-psychic organization peculiar innate tendencies. The difference between these two conditions consists of the fact that hysteria is more frequent of occurrence in women, while the obsessional affections are more frequent among men. Careful inquiry always reveals the fact that both affections date from the time of tenderest childhood.

The two affections in question are analogous not only in regard to their present status but also in regard to their clinical natures. Thus, in the case of hysteria, with hysterical fits or psychoses, it should not be said that the subject has always been perfectly normal and that the disease dates from the time of the onset of these disturbances: The latter are only present manifestations of a morbid condition that has always existed in the subject. Similarly, obsessional manifestations are not of a sudden birth: They owe their existence to a particular predisposition dating from early childhood of the patient.

I realize the fact that the analogy brought out above is not a substantial proof of the views I hold in regard to the subject in question; nevertheless it elucidates it so far as it is possible to elucidate such a subject.

According to my point of view, the varieties of *constitutio ideo-obsessiva* should be grouped as an individual class of psychic degeneracies in a manner similar to that in which hysteria is grouped by itself. Indeed, from a clinical point of view, the acts in *constitutio ideo-obsessiva* are characteristic of themselves. Thus, morbid impulsive acts and dealings, of a general nature, are compatible with any degree of morality; whereas similar acts in the disease in question are accompanied by moral deliberations and suffering, because subjects thus afflicted are acutely sensitive to their duty and to propriety of action. Every physician who handles such cases can verify this statement. Indeed, when such a patient complains to his physician of having obsessional homicidal inclinations, it is easily found that the patient is suffering not from "homicidal mania" but from homicidophobia. Similarly, when such a patient complains of suffering from obsessions to steal, it should not be said that he is afflicted with "kleptomania"; on the contrary, he is afflicted with kleptophobia. In these instances the momentary excitation to commit an act contrary to the patient's moral conceptions causes him to suffer from obsessional fear and the episode ends there. The question of impulsive acts properly speaking does not come under this heading.

The process of morbid impulses as it appears to me has nothing in common with *constitutio ideo-obsessiva*; and if both belong to the class of psychic degeneracies, the latter is of a different qualitative kind. As for the relation of *constitutio ideo-obsessiva* to neurasthenia, these two affections often coexist. The neurasthenic condition in such cases aggravates the obsessional condition and brings the obsessions readily into play. Neurasthenia is not the cause, however, of the obsessions.

The obsessional psychosis here considered does not preclude the coexistence with it of other psychoses. The affection most frequently associated with this obsessional status is melancholia, the latter helping, in its turn, bring to light more forcibly the obsessional process. In some instances *constitutio ideo-obsessiva* serves as a basis for the development of temporary mental confusion. Melancholia, however, is more frequently associated with the obsessional status.

Although I consider *constitutio ideo-obsessiva* as an affection typical of itself, I do not deny the existence of symptomatic obsessions in connection with various forms of psychoses. Such obsessions are found, for instance, in dementia precox, in general paralysis and in other psychoses. The differential diagnosis between symptomatic obsessional ideas and *constitutio ideo-obsessiva* is like the differential diagnosis between a melancholic condition

and melancholia, or like that between a maniacal condition and mania, or like that between symptomatic mental confusion and amentia of Meynert. The differential diagnosis between the obsessional ideas in question and various symptomatic obsessions also applies to the clinical development of the respective affections. Thus, although the obsessional process in question is of life long duration, the patient suffering from it never becomes demented from its effects. If the patient lives to reach the age of senility and becomes a senile dement, the dementia is then not the consequence of the *constitutio ideo-obsessiva*, but simply a condition coexisting with the latter state.

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SUGGESTION DURING NARCOSIS PRODUCED BY SOME HALOGENOUS DERIVATIVES OF ETHANE AND METHANE (ETHYL-METHYL- LIC SUGGESTION).

By DR. PAUL FAREZ,

Professor, School of Psychology, Paris.

There are numerous mental as well as nervous cases in which the application of moral therapeutics is most justifiable, although it must be admitted that the results of this mode of treatment do not always correspond to the expectations from the same. This fruitlessness of suggestive therapeutics is due, in the majority of cases, to the method of applying it. Thus, the physician who uses this mode of therapeutics may be too hasty or have too much confidence in himself while practicing the suggestion on his patient, without deeming it necessary to gradually prepare his subject who is to be the recipient of the suggestion. The suggestion remains, therefore, fruitless in results. Indeed, it should be borne in mind that the act of suggestion is characterized by two distinct periods. During the first period is produced the condition known as *hypotaxia* and during the second period is induced the state known as *ideoplastia*. The patient's susceptibility to suggestion is developed during the phase of hypotaxia; his capacity for receptiveness is increased, his resistance is diminished and he is plunged in a condition of passiveness, inertia, torpor, somnolence or sleep. The patient is then led into a condition of anideism. At this point only begins the second phase—that of *ideoplastia*. Thanks to this latter condition the physician becomes enabled to get the patient's consciousness (or subconsciousness, according to the case) into a condition of monoideism. At this point the desired psychic or somatic consequences can be brought about.

The most important realization in the process of hypnotism is the first step—hypotaxia. When this condition is once obtained the patient becomes subject to suggestion. In some cases, however, the attempt to produce hypnosis remains fruitless. Too marked mental concentration or distraction of the patient prevents him from being hypnotized in the ordinary way. In cases of refractory patients like these it has been found that preliminary chloroforming is a valuable aid in the process of hypnosis.

Some cases have been reported in which this method has been

employed with gratifying results. Chloroforming is difficult of handling, however, and is accompanied by many and inconvenient complications, especially when the patient wakes up from the artificial sleep. For this reason I use chloroforming very seldom and after much hesitation. In cases of patients refractory to hypnotism I have, during the last few months, been using, instead of chloroform, two of its halogenous derivatives.* These are ethane and methane. More frequently I use a mixture composed as follows: Ethyl chloride 65 parts, methyl chloride 35 parts and ethyl bromide 5 parts.

The mixture above described is used in dentistry under the name of somnoform. It is claimed that this mixture is neither caustic nor irritant to the mucous membranes. It is easily administered, before or after meals, and does not necessitate the presence of an assistant. It is equally applicable in the young and in the old, in the healthy and in the sick. The patient may remain in a sitting or lying posture, dressed or undressed. The anesthesia sets in without much delay, never fails in its effects, is harmless in consequences, is followed by spontaneous and complete waking and leaves no feeling of malaise.

My personal experience with this mixture confirms all that has been said of its efforts. The advantages of this method of inducing hypotaxia are the facility, promptness, harmlessness and efficaciousness that characterize it. I think that this mixture can and should be substituted for chloroform in all cases where heroic measures must be employed in order to produce hypotaxia. I induce narcosis, hypernarcosis or hyponarcosis, according to the special and personal characteristics of the patient subjected to such hypotaxia.

Narcosis corresponds to psychologic automatism: consciousness is obscured or abolished but subsonsciousness is fully awake. The sensorial excitations and suggestions are received by the subconsciousness. The narcosis often causes hypnagogic hallucinations and dreams with or without motor phenomena. The hallucinations and the dreams are apt to be remembered by the patient after waking up from the hypnotic sleep. The hallucinations and the dreams can be prevented from taking place by suggesting to the patient, while under the narcosis, not to have any hallucinations or dreams.

During hypernarcosis both consciousness and sub-consciousness are lost and the patient is completely unconscious of his surroundings. Now and then certain gests indicate that the patient retains

* The term halogenous is applied to metalloids that combine directly with metals and form with them salts. The resultant products are called halogenous derivatives, such as are the chlorides, bromides, etc.

some oniric activity; on awaking, however, he remembers nothing of that which he had dreamt.

While hypnarcosis surpasses narcosis properly speaking, hypnarcosis is less intense than narcosis. Consciousness is somewhat impaired during hypnarcosis. The impairment applies to its extent; its intensity, on the contrary, is augmented. In this condition of hypnarcosis conscious and unconscious resistance is lessened in degree and sensory acuteness is marked. With the lessened volition, exaggerated auditory acuteness and central hyper-receptiveness the patient is in a condition of psychic exhilaration, favoring the process of suggestion and acting under the dictation of the latter.

The three grades of narcosis may be utilized for diagnostic purposes in difficult cases. Thus, the physician is often enabled to detect various interesting phases of the patient's psychosis, while the patient is talking unconsciously—during the narcotic sleep. The presence of obsessions, impulses, phobias and other pathological traits that the patient has succeeded in masking during his conscious state can thus be detected either through the patient's spontaneous subconscious manifestations or through suggestion on the part of the physician. One more advantage derived from putting the patient in a somnoform condition is that the finer traits of the psychosis to which he is subject are far more evident during this condition than they are during the usual state.

The advantages above described are not obtained to the same extent in all the three forms of narcosis. During hypnarcosis the patient is restless, plaintive, groaning, speaking in monosyllables or exclaiming some incomprehensible phrases or words. During hypnarcosis the patient's lucidity is akin to that observed in some forms of somnambulism: he is talkative, gives many details stored up in his subconsciousness and answers questions addressed to him; at times the patient's obsessions become personified, so to speak, and the patient carries on a dialogue between himself and his obsessions. A similar condition often takes place during an ordinary dream.

During narcosis, properly speaking, the patient gesticulates, but speaks in well articulated sentences. If the patient does not manifest any motor phenomena during his oniric state he remembers this well when waking up.

Therapeutically each of the three states—hypnarcosis, narcosis and hypnarcosis—has its special application.

Direct suggestion is not practicable during hypnarcosis. Indirect suggestion, on the contrary, is advantageously applied in this condition. The patients who yield to psychotherapy under these conditions are neurasthenic cases that are refractory to

direct suggestion during normal wakefulness. It is needless to say that the successful result of suggestion during hypernarcosis is due to the patient's faith in the healing property of suggestion. I have seen most refractory cases not only yield to suggestion during hypernarcosis but also become, after a single séance of hypernarcosis, most amenable to suggestion during the normal state.

During narcosis properly speaking, the physician is enabled to make special suggestion that is received by the patient as such, even against the patient's own will. Mental cases, and especially the insane, who are generally refractory to ordinary suggestion, are particularly amenable to suggestion during narcosis properly speaking. Before subjecting a patient to narcosis for the purpose of curing him of some delusional conceptions or pathological auto-suggestion it is advantageous to irritate and exasperate him. When narcosis is induced under these conditions, the patient easily acts upon the physician's suggestion. The mental condition of such patients is thus modified in spite of themselves by acting on their subconsciousness. Contra-suggestion is also made possible under these conditions. Thus, an individual suffering from pathological or criminal suggestion, made either by one particular person or by a collection of persons, can be cured of it by contra-suggestion while he is in a state of narcosis. In order to fully accomplish this aim the physician should make general moral suggestions to his patient.

Hyponarcosis is a convenient method to use for suggestion in the various cases of mental degeneracy, such as morbid doubts, scruples, obsessions, impulses, aboulia, moral insanity, etc. These patients are generally intelligent and have a certain amount of instruction; they realize their mental status and are most willing to submit to suggestion in order to get cured of the pathological conditions to which they are subject. Not only do they consent to undergo this treatment, but they submit to it most ardently. These patients are generally refractory to hypnotism in its ordinary application. Besides, every suggestion made to them when they are in a condition of insufficient hypotaxia has no effect on them. Once plunged into hyponarcosis, however, these patients imagine that every obstacle to suggestion is removed and they feel capable of being influenced by suggestion. Under this condition they have neither the will nor inclination to resist suggestion, as they feel fully disarmed in mental opposition. They accept unconditionally whatever suggestion is made to them.*

* For details regarding the compatibility of psychic life with narcosis, hypernarcosis and hyponarcosis and clinical facts regarding this question, see *Revue de l'Hypnotisme*, July and August, 1903.

Hyponarcosis is particularly applicable in certain cases of generic impotency, such as may result from psychic traumatism or from some morbid mental preoccupation. Ordinary suggestion generally remains inefficacious, as it does in the other psychic degeneracies. Suggestion during hyponarcosis, however, yields gratifying results. In the very worst cases some good result is generally obtained. The least result obtained is an amelioration of the condition under treatment, enabling the patient to look at the brighter side of life.

It is useful to remark that hyponarcosis has a special clinical virtue in as much as some patients, afraid of becoming "slaves" to suggestion and of losing their will-power, through the application of hypnotism, by the ordinary method, have no source of mental worry when first subjected to hyponarcosis. Although conscious of their surroundings during hyponarcosis, the patient's mentalization is concentrated on one point,—that of receiving the suggestion made by the physician.

Generalizing on the application of somnoferic narcosis in its various degrees I wish to state that it is useful not only in cases where chloroforming had to be resorted to hitherto, but also in all cases in which suggestion is called for. This method enables one to obtain artificial hypotaxia that is easily as well as rapidly induced and completely answers the physician's purpose. It may be useful to know, however, that one should be cautious in applying this method in hysterical subjects. Indeed, the first whiff of the mixture is apt to be followed by a sudden and violent hysterical attack in a manner similar to that in which a flash of lightning, a sudden noise, etc., are apt to precipitate on onset of a hysterical fit. Should such an accident take place, it is well to appreciate the true value of the incident. The physician may immediately suggest to the patient not to have any hysterical attacks and wait until the attack is ended.

The mixture above mentioned is known as somnoform. This term is an arbitrary one and is not founded on the ingredients that compose it. The name was created like so many other similar names were created—as antipyrin, cryogenin, parodyne, etc. It should not even be supposed that the last part of the term—"form" implies that formic acid enters as a component part into this mixture. I should substitute for "somnoformic suggestions" "ethyl-methylic suggestion" (chlorobrom-ethyl-methylic).

THE ABNORMAL CHILDREN IN ITALY.

BY DR. MANHEIMER-GOMMÈS,

Late chef de clinique, department of mental diseases, Paris.

Of the various medical institutions founded during the latter half of the XIXth century those devoted to the care and treatment of abnormal children are the most remarkable. These children are variously termed in the different languages. In French they are called *arriérés, les retardés, les déficients*; the Italians call them *deficienti* and the Germans designate them as *schwachbegabte* or *schwachsinnige*. I have had occasion to relate elsewhere the progress that has been made in the matter of treating and teaching these children in England, Germany and Switzerland. I shall relate here the activity in this direction shown by the Italians.

The organization of the institutions for the care, treatment and instruction of the abnormal children in Italy is based on scientific principles. This condition is a natural outcome in a country where such scientists as Lombroso, Sergi, Masso and others have laid a solid foundation for the study of anthropology, sociology, criminology and pathological pedagogy. The progress in founding pedagogic schools for abnormal children has been considerably hindered in Italy by reason of insufficient monetary funds. Nevertheless, the institutions that are in existence are conducted on plans of broad and scientific principles. The same cannot, unfortunately, be said of France where, with the exception of some two principal departments, such schools are non-existent.

According to the statistics prepared by M. Zaglia, of Genoa, Italy, there are about 20,000 abnormal children in the kingdom. This number includes only those children who are capable of psychic instruction. The idiotic, epileptic and abandoned children are not included in this number. In Italy, as in France and elsewhere, statistical data relating to this question are incomplete or lacking. Switzerland is one of the exceptional countries where statistics on this question are gathered by order of the Federal Council.

The government and administration of the Italian psychopathic school is similar to that of the Bicêtre Asylum, Paris. Schools similar to this one are found, in connection with hospitals for the insane, in the various asylums for the insane at Rome, Sienna and Reggio-Emilia. Professor Tamburini takes great interest in the last mentioned school.

Besides the psychopathic schools connected with hospitals for the insane, there are a number of private schools for abnormal children. The first of these schools was founded in Veranago, in 1899. Its purpose is that of treating and educating neurasthenic children. Private committees organized the work and collected moneys for the maintenance of these institutions. There are some fourteen committees, the members of which are psychiatrists, pedagogues, philanthropists and various persons of high standing, who are engaged in furthering the progress of the schools. The King of Italy has been largely instrumental in bringing financial support either through the Royal Treasury or from the Provincial Budget. Dr. Bonfigli, of the Hospital for Insane at Rome, has largely contributed to the support of the schools. Through his efforts, the Minister of Public Instruction, Professor Baccelli, has been instrumental in organizing a national league for the protection of abnormal children. Besides, there was also instituted a series of public lectures treating of the question of education of abnormal children. Among the various workers on this subject, a woman physician, Signorina Montessori, has rendered considerable help in organizing the schools. She has devoted a great deal of time to the study of the abnormal, degenerate and criminal children, in Rome and Milan, and to the educational methods as applied to them.

The appearance at these conferences of the various personages of high scientific and social standing vigorously impressed the public mind and woke up its interest in the question of treating and educating these children. And, indeed, the well organized schools for abnormal children in Italy is due to the interest shown in them by the public at large.

I shall speak here of the most important schools only. The

school at Rome is one of the best organized and was founded in 1898. Professor Sancte de Sanctis is its director and he has published, besides his important psychiatric works, some valuable studies on pathological psychology. In this school are received paying patients, between the ages of 12 and 15 years. The majority of the pupils are boarders of the school and the rest come for instruction only. The children suffering from defective articulation of speech are under the special care of Dr. V. Bianchi. The methods applied to the education of the pupils in general are most modern and scientific.

The Toscan committee has founded a school in Settignano, a few miles outside of Florence. This school is called Scuola Humberto I. This is a boarding school for children of both sexes, between the ages of 4 and 12. Only a few of the pupils are admitted as externes and on condition that they show capability for education. There are at present forty inmates in this school; sixteen of these are supported by the city of Florence.

In Milan a school was founded by Signora Sagatelli, in 1894. There are some sixteen pupils in this school.

In the Emilianna provinces, there is a school called San Gioranni in Persicato, founded in 1899. Professor Tamburini is the director, and Professors Roncati and Brugia are his associates in this work. The children admitted to this school range between the ages of 5 and 15 years. The condition on which the pupils are admitted is that they prove themselves capable of being educated. The provinces pay forty lire per month, per child. Manual training is given to the pupils in the school workshops and in the fields belonging to the institution.

The school of the province of Bergame is directed by Prof. Luchini. The physician of the school, Dr. Mazocchi, is one of the physicians of the asylum of the same province. The number of pupils is 40,—boys only. The education and board of the pupils who cannot afford to pay is paid for by the respective counties, benevolent families and charitable organizations. Some of the pupils are supported by the Director of the school.

All these schools have been established for the education of paying pupils in particular. The admission here of poor pupils is only incidental. The establishment of similar institutions for poor pupils exclusively is of a more recent date. Professor de Sanctis founded an Asylum-School for indigent abnormal children, in Rome, January, 1898. Prominent scientific men and benevolent societies came to his assistance in this work. Professors Sciamanna, Sergi and others are connected with this institution. The basis of instruction in this school is the teaching of manual train-

ing. This method has proven so successful that the number of pupils rapidly rose within the course of two years from sixteen to fifty.

In 1901, a similar school was founded in Genoa by Dr. Cabitto Clemente. The pupils for this school were chosen among those in the House for Delinquents and Rachitic. According to its founder, the organization of the new school is not yet completed. The municipal authorities have only given permission to the medical authorities to choose their pupils, as above indicated, and in the public schools, but the monetary fund is as yet far from being sufficient to carry on the work practically.

One of the prominent features of this organization is the establishment of instruction for tutors and pedagogues. The special branch of instruction for these educators is psychology as applied to the abnormal. Signorina Dr. Montessori is largely responsible for the birth of this department. She had delivered a series of public lectures on pedagogy as applied to abnormal children and so pleased the public that she succeeded through it to obtain permission from the Minister of Public Instruction to give some lectures on the same subject in the three Normal Schools in Rome. She was the first one to recognize the fact that the Normal Schools were not the proper places where the subject of psychopathology should be taught. Therefore, she opened a special school for the purpose of teaching the subject. This school was the foundation of the present Pedagogic Institute for Feeble Minded Children. Inmates for this school were chosen from the children's wards attached to hospitals for the insane and from other sources. The children were treated on scientific principles and the tutors had ample clinical material for study.

The instruction given in this school to tutors is thorough and technical, clinical and theoretical. Some of the distinguished psychiatrists of Rome are engaged in this work. The founder of the school, Signorina Dr. Montessori, lectures on anatomy and pedagogy; Prof. Gronzi lectures on the anatomy and physiology of speech; Dr. Trafeli lectures on the pathology of speech. A laboratory with a rich collection of apparatus facilitates the teaching of the various branches taught in this school. The lecture hours are between 4 and 7 o'clock in the afternoon. This special arrangement was made for the purpose of enabling actively engaged teachers to attend the lectures.

The requirements for admission to the lectures are a tutor's diploma. A certain sum of money is paid for a course of instruction. The teachers are taught how to handle practically the abnormal children, how to take a clinical history and how to make a

physiological and pathological examination of an abnormal child. At the end of the first year's course the tutor is required to make a statement regarding the mental condition of the inmates he has been studying. This record is filed and kept for reference for the final examination. Diplomas are given to tutors who successfully pass their final examinations. These diplomas are of a certain value to those who have to undergo competitive examinations for certain government appointments.

The monetary sources of the school are: The monthly payments of the inmates, the city contribution (200 lire), the Ministerial contribution (1,200 lire) and the provincial contribution (40 lire per capita, amounting to 30,000 lire per year). It is hoped that in the near future the school will become a State institution. The professors give their time to teaching in this school free of charge.

This organization of the schools in question is most interesting. It is to be hoped that other countries, in which such schools are non-existent, will soon follow Italy's example.

SUICIDAL AND HOMICIDAL ACTS. THEIR CLINICAL ASPECTS AND MEDICO- LEGAL SIGNIFICANCE.

BY LOUISE G. ROBINOVITCH, B. ès L. (Paris), M. D.

Member New York Academy of Medicine, Foreign Associate Member
Medico-Psychological Society, Paris.

(Continued)

We have shown above examples of various deliriums that are apt to lead to suicidal or homicidal acts. In the cases of the insane with ideas of persecution it was seen that the delusional ideas had no particular development. In some of these cases, in fact, the delusional ideas were even of an obsessional nature, always remaining the same, even when the disease was of long duration. There is a form of mental disease, however, in which evolution of the delirium predominates the morbid scene. This particular evolution was fully pointed out by Magnan. He was the first one to call attention to the fact that the disease is characterized by four successive stages: 1, incubation; 2, persecution; 3, grandeur, and 4, dementia. He accordingly termed this disease *chronic delusional insanity of systematic evolution*. He groups this disease outside of the class of degeneracies.

An example of this affection is given in case XII. From a medico-legal standpoint, cases like the one below cited present

much interest in the earlier stages, before the grosser traits of insanity become easily apparent. If such a case were to commit homicide during a moment of violent reaction, while yet in the early stage of the disease, a well informed judge would, with the aid of a medical expert, acquit the subject of the murder.

The affection to be described is typical of what is also commonly called "chronic paranoïa." I shall not enter here into any discussion regarding the technical controversies or the accepted and rejected forms of the diseases that have been grouped under this heading. The cursory remarks made on page 27, Vol. V., No. 1, regarding the easiest way of facing the confusion created by the arbitrary application of technical terms by some German psychiatrists, answers the practical purposes of the jurist. A proper recognition of the existence of the disease, by whatever term it may be designated, warrants a legal recognition of its victim as being mentally irresponsible.

*Case XII.—No History of Degeneracy.—Integrity of the Mental Condition up to the Age of 39. The First Period of the Disease Lasted Three Years. The Second Period Lasted 12 Years. Auditory Hallucinations. The Third Period Began When the Patient Reached Her 52d Year.—Systematized Delusions of Grandeur.—Neologisms.**

Augustine D.,—57 years old, entered the Admission Bureau, June 17, 1890. Her mother always enjoyed good health and her father was also healthy and temperate and died at an advanced age of some liver disease. He was mentally sound and was devoted to his family.

The patient attended school until she was 13 years of age. She showed a normal aptitude in her studies and when she left school she was placed as an apprentice in an artificial flower business, where she soon distinguished herself as a good worker. She married when 22 years old and took an active interest in her household. When 29 years of age, she lost her only child, 4½ years old, and was much affected by this loss. Up to this time her mental condition had been perfectly normal. She had typhoid fever when 15 years old, but made a good recovery and had no mental disturbances in consequence.

She first manifested symptoms of mental trouble in 1879, when 38 years old. She began to worry, imagining that people pointed at her with their fingers, that they whispered about her as they passed her, that they laughed at her, and that they even spat in her

* Magnan. *Leçons cliniques sur les maladies mentales*, 1896.

direction. She did not yet designate her enemies by name, but was simply fretful, uneasy and suspicious, as her disease was then in its first stage—that of incubation. Instead of designating her enemies specifically by name she generalized their individuality by the word “they.” She said that “they” looked in her direction, “they” spat in her direction, “they” interfered with her, “they” watched her and made unpleasant remarks about her. She gave a delusional interpretation to every gesture, remark, incident or noise. When she complained to her husband about this new condition, he generally replied: “I know it all.” She immediately concluded that he worked with her enemies against her.

This period of uneasiness lasted three years. In 1881, when she was 40 years of age, she manifested for the first time auditory hallucinations. This was the beginning of the second period of the disease, or the period of persecution.

She heard people call her obscene names; she even heard them distinctly pronounce these names syllable by syllable. She heard her grocer and his children call her obscene names. One day she was vexed by this behavior of the grocer, rushed into his store and complained to his wife about the matter. The wife defended her husband and said that he was as friendly to the patient as usual, but the patient was not convinced of the truth of this statement. She argued this matter with everyone in the neighborhood and finally concluded to move to another part of the city. No sooner had she settled in the new neighborhood than she again heard people call her bad names. She migrated from place to place. This lasted some nine years, but without avail; wherever she located she heard people call her obscene names. She finally decided to seek justice at police headquarters, where she made a statement of her trouble. Arriving home, she became so excited over the indifference of the police officers that she became violent with her neighbors. She was arrested and brought to the Admission Bureau, June 17, 1890.

In the asylum she considered every patient as her enemy and, in addition, she heard her neighbors' voices. They had come purposely, she said, to offend her and to humiliate her before the patients. She learned from the patients the necessity of being optimistic, if one desired to obtain one's liberty, and she promptly acted accordingly. She became quieter, said she was contented and behaved so well during the ensuing three months that she obtained her discharge. Once at large, she felt free to again speak of her persecutions. She was persecuted by everybody with whom she came in contact or whom she met in the street. Men in the street conducted themselves most obscenely; they did this pur-

posely to shock her feelings of propriety. At night she saw a whole band of people who conversed with her husband and all of whom enacted obscene deeds. They were all stationed upon the roof and watched her. She even heard her nephew say: "It is your turn now; my two hours are up." She then saw someone take her nephew's place. She could not endure the sight of the obscenity enacted upon the roof and she put mattresses in front of her windows, but she could still hear the voices of the "band" that her husband directed. She plugged up the cracks and holes through which the voices could possibly reach her, but this did not shut them out completely, and she poured tincture of iodine into every crack and hole in her room, hoping thereby to rid herself of the sounds that came from her persecutors. This heroic measure brought her no relief, however, and in 1891, she finally instituted proceedings to obtain a divorce from her husband.

When the case came up for trial her disease had progressed sufficiently to make her second commitment necessary, and she was brought back to the Admission Bureau March 17, 1892.

Her delirium continued progressively. She often rushed at patients and assaulted them because she imagined that they talked against her. She imagined that everyone watched her, every step she made was counted and her every act was observed. She was certain she was being watched closely, for, one day, she was writing a letter and heard the physician say: "She cannot write."

About this time she began to manifest symptoms of disturbances of the general sensibility. She imagined that the physician used electricity on her at night and had an ignoble purpose in view. Speaking of this matter, she says: "This seems to be an impossible thing, an insane statement, yet it is a fact of which I assure you. You know that I do not wish to pass for an insane person by making extraordinary statements." In 1893, she implored her husband to forgive her everything and to take her home.

When he called to see her, she received him kindly, even warmly and tried in every way to behave like a normal person. She argued with him calmly and begged to be taken home. This the husband refused to do. When she saw that he was determined to leave her in the asylum she stopped dissimulating her delusional condition, became violently excited and gave free vent to her delusional constructions.

This delusional condition continued until 1893. About that time her attitude began to change in nature. She began to keep aloof from the other patients, refused to perform certain duties allotted to her in the kitchen and bedroom, and said that her station in life was far above that of the other patients. When her hus-

band called to see her, she no longer called him by his christian name; she was now too important a personage to converse with him familiarly, and called him by his family name.

This change in her mental condition denoted that her illness had reached its third stage. The latter condition became distinctly marked in June of the following year. Her delusions of grandeur were now most characteristic. Thus, one morning, she approached the chief physician and said to him that she wished to send a letter to the President of the Republic. She said that she knew him and that he had visited her in her apartments. He had come to thank her for his election to the Presidency. She explained that she was instrumental in making Grevy leave the Presidential chair.

She maintained her lofty attitude until October of the same year and refused to speak to the patients and attendants. At that time she again approached the physician and said that she wished to send another letter to the President of the Republic. She added that in her letter she wrote down two different addresses to which a reply could be sent, so that the President's answer might not go astray. She further remarked about her interview with the President of the Republic: "I saw him in 1887; later I saw him in the street; he wore a large overcoat. M. Grevy also called to see me. He protected me against the evil deeds of my husband and his gang." Although she had the friendship of M. Grevy, she found it necessary to supplant it by that of President Carnot, because M. Grevy made frequent calls on a woman, Aron, who lived on the floor above that occupied by the patient. She proposed to let President Carnot hold his position two years longer, at the expiration of which time she herself was to be proclaimed "La Republique Française."

Her delirium of grandeur progressively increased in intensity. She heard voices exclaim: "Long live D., long live Augustine." She, therefore, went to visit an American family in the Champs Elysées, where she was recognized as a distinguished personage. The negro servants bowed their heads low, and her presence so deeply affected their emotions that they remained bowing and speechless: it was she who had made Lincoln abolish slavery. On her way home she passed the Grand Opera. A large crowd was gathered there on the Place de l'Opéra and everyone called to her loudly: "Republique Boulanger." She passed on, and when about to enter her apartments, the people in the street called to her: "La Marseillaise!" "La France!" "La Republique!"

In 1893, she wrote a poem that was quite characteristic of her mental condition and of her delusions of personal grandeur. The following are selected stanzas from that poem:

"L'asile de Ste-Anne
 "A ma haine à mort;
 "Pour le mal qu' ils m' ont fait
 "Jamais je ne pardonnerai;
 "Un jour je dois sortir;
 "Le lendemain c'est contredit;
 "Depuis que je suis dans leurs griffes
 "C'est la même comédie.

"L'asile de Ste-Anne
 "Attend son châtement,
 "Par la guillotine
 "Qui sera dressée dans cet asile,
 "Les autres au pilori
 "Devant le Palais de Justice;
 "Ensuite décapités
 "A L'entrée de la Cité."

Another characteristic feature of her illness is the fact that since the onset of her delusions of persecution she has been using neologisms. Thus, she says that the "International" persecuted her; the "Invisibles" conferred underground about her; she suffered from the "rouerie populaire," she was a victim of the "traffic sournois." It is a "degoutation" to be a victim of the "traffiqueurs" and the "Tartuferie."*

In 1897, she denied having had any delusions of grandeur. She said that she was not the "Republic." She admitted that her husband was the leader of her persecutors, but that she paid no attention to his doings, because he had received his punishment for his misdeeds: He and his gang were taken to the asylum, and she would see them all in the court yard. In fact, everybody who had persecuted her had been punished. They were all taken to the asylum; some of them were her friends, she said, but they did not dare make the fact known and preferred to remain inmates of the asylum rather than to divulge the secret. She had no desire to become the "Republic," she said, but wished to go away to a quiet place and live there comfortably on the money she could obtain from the various law-suits against her enemies. She also wished to erect a guillotine and decapitate all her enemies. She had the plan made for this: Her enemies must be ensnared into the prison and into the asylum and the wholesale decapitation could then easily be accomplished by the attendants.

I am indebted to Dr. Magnan for the permission to publish this case which was published by himself in his *Leçons Cliniques sur les Maladies Mentales*.

* The neologisms cannot be translated into English for obvious reasons.

MORBID OBSESSIONS AND IMPULSES.

There is a group of mental affections that are often characterized by suicidal and homicidal acts that present particular interest to the medical jurist. These cases are classed as degenerates with obsessional and impulsive manifestations. Such cases are apt to commit murder while in full possession of consciousness, while fully capable of discriminating between right and wrong and in spite of a powerful struggle with themselves against the commission of violence.

According to the Code of Criminal Procedure of the State of New York, the legal test of mental unsoundness, as applied to criminal cases, is based on the assumption that "insanity is a question of law to be determined by the Court, and that the question of responsibility in mental diseases hinges on a knowledge of right and wrong as to the particular act at the time it was committed.*

A careful reading of the case below cited will easily convince the upholders of this section of the Code of Criminal Procedure of the State of New York that the question of responsibility in mental diseases *cannot* logically hinge on the patient's knowledge of right and wrong as to the particular act at the time it is committed. Indeed, the patient described below was in full possession of consciousness while suffering from powerful impulses to kill her two children, whom she loved. She fully realized the enormity of her impulsive attempts and was tormented by the thought of the wrong that she was apt to commit at any moment.

Every jurist who reads the description of this case and of similar ones (1, 2,) will agree that the section of the Code of Criminal Procedure of the State of New York is unscientific and illogical from a psychiatric standpoint.

*Case XIII.—Hereditary Mental Degeneracy.—Visual Illusions.—Episodic Syndromes.—Doubts, Obsessions and Impulses, Particularly Infanticidal and Suicidal.—Impulse to Kill Her Two Children, Regardless of the Love for Them.***

C. C.—30 years of age, born in St. Maurice (Seine), married, entered the Admission Bureau, November 4, 1896. Her father is of temperate habits, she says, but suffers from rheumatism. Her paternal grandfather was an inmate of Bicêtre, where he was treated for epilepsy; he was addicted to the use of alcoholic

* Quoted from the *Journal of Mental Pathology*, Vol. I., Nos. 4-5, 1902, p. 180.

** I am indebted to Dr. Magnan for his special permission to publish this case.

drinks, had a violent temper, and one day he attacked his wife with a knife and was sentenced to eight days in prison. He died when 76 years of age. A paternal cousin, 32 years of age, has a congenital malformation of the vagina; according to a physician's statement, the organ is a double one. A paternal uncle is addicted to the use of alcoholic drinks. The patient's mother, 57 years of age, is of a nervous disposition, superstitious, unbalanced and of a gloomy disposition. When she was 38 years old she was bitten by a dog and she imagined that the animal was mad and that she would become insane in consequence of the bite. This idea predominated two years. She spent sleepless nights, wandered about in the day time and worried about the onset of the insanity that, she thought, would be the inevitable consequence of the dog's bite. This condition of anxiety about impending insanity lasted for a period of two years. She then manifested a series of obsessions of various natures. She became fastidious and scrupulous, examining her food many times before eating it. She often refused to eat meat, fearing that it was poisoned with rabies. One day she bought a rabbit, brought it home and was about to prepare a meal of it when she suddenly imagined that the animal had been bitten during life by a mad dog. She therefore refused to use the meat. A maternal uncle died of paralysis. One brother, 34 years of age, is of a gloomy disposition and odd of conduct. Another brother, 22 years of age, suffers from mental debility. Since the age of 13, when he saw a child die, he has been in constant fear of death. He has had various fears that he would be poisoned or buried alive. One brother died of small-pox and one sister died during infancy.

During her childhood, the patient was of delicate health, nervous and fearful. She always looked under the bed before retiring. She had various doubts about things. Thus, when she shut the door of her room she returned several times to the door, trying to assure herself that it was locked. When she dropped a letter into a letter box she returned to it several times to assure herself that she had dropped the letter into the box and not outside of it. She was afraid of being in a dark room, as she saw imaginary figures in the dark.

She married when she was 22 years old and took an active interest in her household duties. She always feared that she would die suddenly and this fear became particularly marked during her second pregnancy. She feared that her death was imminent and made her will. During this pregnancy she also had frequent crying spells and at one time she cried almost continually during a period of three months.

She was devoted to her husband and two children, but at times she had an obsession to do harm to her second child. This obsession developed into a distinct imperative impulse during her third pregnancy. One evening, in February, 1896, while returning home with her second child, the thought came to her suddenly of pouring upon this child's head a pot of boiling grease in which she was about to fry potatoes. Speaking of this incident, she says: "A terrible desire came over me to pour upon my child's head the boiling grease and I struggled against it during the whole evening."

This incident happened during the fourth month of her third pregnancy, and she seemed to be in her usual condition until the eighth month of this pregnancy. At that time, she suddenly, without any previous warning, felt impelled to throw her second child out of the window. She controlled herself, however, and acted in a normal manner for some time after this incident, but she soon again suddenly felt impelled to throw herself with her second child from the window of her room. She says: "When this idea struck me I shook with fright; I tried my best to rid myself of this terrible thought, but my effort was in vain; I then informed my mother that I could no longer keep my younger child at home, that an evil thought prompted me to do her harm and that her life was in danger."

The patient never had any impulse to harm the older child, eight years old; her morbid impulse applied to her younger one. This impulse dominated the mother even when the young one was away from home. She often felt impelled to run to her mother's house, where the child had been sent for security, and to kill the little girl preferably by throwing boiling water or grease, or the red-hot stove cover at the child.

A physician prescribed bromide salts for the patient and the child was kept away from her. In the course of time the patient improved so far as to be free from homicidal obsessions. The child was then brought back to her. The moment the little girl was brought into the house, the patient had an impulse to rush at it and to kill it. The patient says: "After my child was brought home I endured torture by day and night from my impulse to kill her. Not one hour of the day passed without my having this terrible thought to kill her. Whenever I saw boiling water or grease or the red-hot stove cover I felt impelled to throw these things at my child. When I consider and realize my position I weep and bewail my fate."

In 1896, she gave birth to the third child. Before the placenta was delivered, forgetting her own pains, she had an irresistible im-

pulse to kill the new-born baby. Beginning with the birth of the last child, the homicidal impulse of the patient applied to the two last children. She never had any impulse to injure the first born. She said: "I felt that if I could have beheaded them both the act would have brought me some relief. At the very least, I wished to throw boiling liquid at them. It was in my hands that I experienced a necessity for breaking something. Yet I loved my children and love them now. I am happily married and am devoted to my family. During the two months following the birth of my last child my impulse increased gradually in severity and I could not stand the strain any longer. I asked to be confined in an asylum, where I could get cured. I do not wish to do any harm to my children; I love them too much."

At various times the patient had an impulse to throw her two younger children down the stair-case, or out of the window, or to knock them down with any heavy instrument, particularly with a chandelier that she generally dusted every day. One day, passing by a moving locomotive, she had an impulse to throw herself and her two younger children under it, but her thought in doing this was with the particular interest of injuring the youngest child. Her husband being with her prevented a possible accident.

In the asylum she was beyond herself with anxiety; she could not rest in the day time or sleep at night, being preoccupied with the desire to destroy the lives of her two younger children. When her husband called with the children to see her and she was told who was waiting for her in the reception room she ran impatiently—not to see them—but to choke them or to crush them, or to kill them by any available means.

She was made to do some work in the kitchen and when carving the meat she had a sense of relief if she imagined that she was carving the flesh of her children; she felt, she said, that if she could cut off her children's heads she would feel happy. When handling scissors, she thought of cutting her children's throats with them. She noticed a heavy instrument used for waxing the floors and she wished to crush her children with it.

She realized the enormous hideousness of her ideas and when she did so she trembled with fright. But when the impulse set in again, her anxiety to accomplish the morbid act was intense; she experienced a sensation of constriction around her waist, she could not breathe and felt as if she were being choked; her skin was covered with perspiration and she longed to execute the homicidal act.

Besides the infanticidal and suicidal impulses, the patient presents a number of other episodic syndromes of the hereditary de-

generate. Thus, one day she was going to the country, in a boat, and felt impelled to throw her pocketbook into the water. She succeeded in controlling herself, however. When looking down into anything deep, into a river, for instance, she feels impelled to throw herself into it. At different times, when passing the Seine, she has had an impulse to throw her rings into it. When passing a manhole she had similar impulses. In the asylum, she wished, at different times, to throw her wedding ring into the space along the water pipes. The impulse was so strong that she took off the ring and sent it home. She never wished to throw away any of her other rings.

THE INSANE CRIMINAL.

In the vast class of the degenerate, there is a certain group of subjects with criminal tendencies that should be carefully studied and understood by the jurist. These subjects are the despair of the clinician as well as of the judges who have to handle them. The psyche of these individuals is a mixed one, being composed of both insane and criminal elements, so that it is unscientific to house these patients in prisons and unjust to allow their presence in the ordinary wards of the hospitals for the insane. Special reformatory institutions are the proper domiciles for such cases. The criminal and insane elements of these cases often date from their early childhood, and a proper appreciation of the nature of such cases at an early period in their lives can contribute greatly towards their reformation. I analyzed this question at a meeting of the *Fifth International Congress of Criminal Anthropology*, held at Amsterdam, Holland, September, 1901, and refer the reader to the report of this Congress (3).

The following two cases are clinical illustrations of such criminals of the degenerate class. Clinically, these subjects are irresponsible before the law even when guilty of homicidal acts.

*Case XIV.—Morbid Criminal.—Highly Charged Alcoholic and Degenerate Heredity.—Viciousness of Patient Exhibits Itself at Age of Sixteen.—Life Thereafter a Continuous Record of Misdemeanors.—Two attempts at Manslaughter.—Crime against Nature (Pederast).—Simulation of Epilepsy and Insanity to Secure Release.—Alcoholism.—Leads a Band of Thieves and Attempts Manslaughter when Apprehended.—Arrested More than Thirty Times.**

*Dr. Louise G. Robinovitch. *The Relation of Criminality in the Offspring to Alcoholism in the Parent. A Clinical Study.* Read at the International Congress of Medicine, Paris, 1900.

P. T.—is twenty-seven years old. Admitted to the Ste-Anne Asylum March 25th, 1898. His father was a drunkard, addicted to the use of absinthe; he was abusive at all times, even when not directly under alcoholic influence, and continuously assaulted his wife, who often stated that she thought he was insane. She herself, on the other hand, had always enjoyed good health. Besides the patient, she has had seven children, and of those who are still living, a daughter, now twenty-five years old, gave birth to an illegitimate child when eighteen years old and killed it. A physician pronounced her irresponsible. She married when twenty-one years old and now has four children, two of whom are cared for in an asylum; she is incapable of performing her household duties. A brother, thirteen years old, is timid by nature and odd in behavior. Another brother is unable to gain a livelihood. An aunt practiced crime against nature. An uncle was insane. Another aunt, on the paternal side, fifteen years old, has frequent spells of depression, during which she cries continuously for a whole day at a time. She imagines that people grimace at her. Another aunt, eleven years old, on the paternal side also, is remarkable for her brightness. Her teachers pronounced her a prodigy. The grandmother on the mother's side was morbidly irritable and suffered spells of intense mental depression.

The patient was born at full term, during the Franco-Prussian war. At the age of five he had an attack of meningitis. He first walked when three years old and began to talk at the age of five. He exhibited no marked bad behavior up to the age of sixteen. Then the viciousness of his nature began to exhibit itself. He started frequenting disreputable places and was found guilty, by default, of attempt to rape young children.

At the age of eighteen the patient enlisted as a volunteer but was discharged after four month's service for having committed larceny. At the age of twenty-one he enlisted at Cherbourg. Having indulged heavily in alcoholics, however, he was detained two months at the marine hospital. From there he was sent to the asylum of Vout L'Abbé. From there he escaped and returned to the barracks, but was refused re-admission. From that time on he continued gravitating from asylum to prison and back again. After every release from either he would commit a crime, be caught and returned to imprisonment. To his mother he once said:

"Whenever I wish to accomplish a fine stroke (*bon coup*) I go to the cemetery and say my prayers over my father's tomb. After that I feel certain of success in my undertaking."

He drinks large quantities of absinthe and suffers now and then

from epileptiform attacks. He is, besides, an expert simulator of these convulsions. He has succeeded in deceiving many an asylum physician. This accomplishment he brings into use as a means of exonerating himself from charges of theft, etc. On July 13, 1899, he escaped from the Villejuif Asylum, and on the 5th day of April, 1890, he was re-admitted, after being arrested several times for thefts committed during the course of the year. He escaped again and was committed again to the Ste-Anne Asylum, September 18th, 1890, having been re-arrested for theft. On this occasion he simulated epileptiform attacks in the hope of escaping punishment for his crime. He was transferred to the Ville-Evrard Asylum, from which he escaped. A new theft brought him back to Ste-Anne from the prison. Transferred to Villejuif, he again escaped. Again he stole, was re-arrested and transferred from prison to the Ste-Anne Asylum on January 16th, 1892. He was transferred to Bicêtre, escaped, stole, was arrested and brought back to Ste-Anne on October 14th, 1893. Again transferred to Bicêtre, he escaped, stole, was arrested and reappeared at Ste-Anne on February 26th, 1894. He was now found to be guilty of practicing actively the crime against nature. This he did upon a bed patient suffering from mental debility.

In February, 1893, he contracted syphilis and was suffering from mucous patches. He also suffered from alopecia for a month. When questioned, he exhibited pride in his successful practice of pederasty in the Villejuif Asylum, in 1889.

The patient admitted that he was a thief, saying that he was not insane, but was merely a rogue. He simulated obsessional kleptomania in order to get out of a difficult position. He spoke with pride when he declared himself to be what the French call a "souteneur." He stated that his mistress furnished him with money for drink and that on one occasion she brought him 400 francs, a watch and a gold ring, which she had stolen from a "transient visitor." After his last admission he was transferred to Bicêtre on March 2nd, 1894, and made his escape. He was readmitted to Ste-Anne, was transferred to and discharged from Bicêtre on July 16th, 1896. Fifteen days after his discharge, he was found suffering from a severe attack of acute alcoholism, he having swallowed thirty-three "absinthes" in one day. He was next heard from as associated with a gang of thieves. Surrounded by the police, this gang attempted to escape. The patient sought a hiding place on the sixth floor of a private residence. A police officer found him on the landing, whereupon this patient fired his revolver at him, the bullet passing through the police officer's cape and flattening itself against a button.

T. attempted manslaughter once before, while serving in the army. There he tried to shoot his captain, but the court-martial acquitted him on his attorney's plea of insanity.

T. has simulated insanity at various times. On the day following his last admission to Ste-Anne he endeavored to simulate a most severe attack of insanity. While the attendants were caring for him most tenderly, he made a violent attempt to escape. Shortly after this he obtained his release, but on February 4th, 1898, he was brought back to the asylum under circumstances similar to those surrounding his previous admissions. His mother, anxious to place her son in some permanent occupation, had managed to obtain permission for him to again enlist as a soldier. Every arrangement had been made for his transportation to Algeria, after his discharge from the asylum; the patient himself seemed to take interest in his new prospects; but no sooner was he at large than he again resumed his criminal career. He was arrested for misdemeanor and brought back to Ste-Anne, March 25th, 1898.

Such is the life history of this offspring of an alcoholic father and degenerate antecedents. Degenerate, depraved, with perversion of the instincts and the moral sense, incapable of gaining an honest livelihood, his life was marked by one continuous indulgence in vice, depravity and unremitting crime. He was arrested more than thirty times and his admissions to asylums are still more numerous. His natural predisposition to crime,—the direct result of an unfortunate psychic inheritance, was aggravated and intensified by bad associations.

*Case XV.—Morbid Criminality.—Alcoholism in the Parent.—Degeneracy of the other Offspring.—Disproportionate Morbid Violence of the Patient.—Attempts to Kill a Boy.—Lies in Waiting for his Victim Twelve Days.**

G. S.,—Ten years old, was admitted to Ste-Anne, March 14th, 1899. The father is a plumber, 47 years old. He is addicted to alcoholic drink, has muscular cramps, gastralgia, morning sickness and nightmares. He often experiences the sensation of a ball ascending from his stomach and choking him in the throat. The mother is 52 years old and in good health. Of their five children two are dead; one died ten days, and the other ten months, after birth; one girl, fifteen years old, is of unbearable nature, and uses

* Dr. Louise G. Robinovitch. The Relation of Criminality in the Offspring to Alcoholism in the Parent. A Clinical Study. Read at the International Congress of Medicine, Paris, 1900.

most profane language. One boy is avoided by his companions for his low nature. A cousin, nineteen years old, is odd in conduct.

The young patient was born at full term and never had any convulsions, but his health has always been in a precarious condition. His first teeth appeared at the age of two and he first began to walk when seventeen months old. He was always difficult to handle. Whenever rebuked for misbehavior he exhibited most disproportionate anger, even striking his sisters and parents with a stick or knife. On several occasions he attempted to avenge himself by setting fire to the household furniture. His parents are compelled to make frequent changes of residence, as the neighbors refuse to tolerate the patient's conduct, which often becomes dangerous. He throws stones at passers-by and beats the children. He has attempted arson three times. For reasons similar to the above, he was dismissed from school. He tramps about on the streets, and it is often impossible to make him return to his home without the aid of the police. Once he attempted to kill a boy who narrowly escaped by flight. Our patient then watched for twelve whole days, putting in this time near the other boy's residence for the avowed purpose of killing him on sight.

(To be continued.)

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Original researches and other MSS. will be carefully considered, and if found unsuitable will be returned, if accompanied by stamped, self-addressed envelope. News items from Institutions will be given all space available.

THE CAUSES OF CRIMINALITY.

Numerous works on the subject of criminality and on its causes have been written by representatives of the various sciences pertaining to criminality. The jurist, the statistician, the sociologist, the anthropologist, the psychologist, the psychiatrist and the psychiatric clinician—all have generously contributed to the study of the genesis of crime. The vast material thus contributed, however, is not uniform either in point of view or in conclusion. Joseph van Kan, of Amsterdam, Holland, has undertaken and executed the arduous task of presenting a critical review of all the familiar works treating of the causes of criminality. The name of the work is *Les Causes Economiques de la Criminalité*. In the introduction, Professor van Hamel remarks that one school teaches that a certain spontaneous quality of the normal human mind helps the subject to conquer the economic difficulties that face him; the anthropologist, on the contrary, worships at the shrine of heredity; the alienist bows to the pathological conditions of the nervous system and to degeneracy, although he takes into account the intimate relation that exists between degeneracy and physiological misery; the soci-

ologist points his finger unhesitatingly at the economic maelstrom that engulfs the moral qualities of humanity; the socialist turns a deaf ear to everything, except the system of economic production as applied to a given epoch of time.

Mr. vanKan has masterfully classified this diversity of material with a view to bringing to light the causes responsible for the birth of the psychological conditions in question. He devotes 496 pages to the study and critical analysis of criminality, treating every author with all the earnestness and impartiality that the subject requires. He concludes that criminality should be considered as a historico-local phenomenon. While economic conditions are never the sole criminogenic factors, they always play a most important rôle in the causation of criminality. The striking feature of the work is the all-convincing force of argument shown by this jurist, who is as familiar with the various scientific aspects of the question as he is with those pertaining to his own profession.

This newest work on criminality is unquestionably the most erudite as well as the most rational of any yet published. The University of Amsterdam has rightfully awarded its author the first prize (1903) and crowned his work.

THE EDUCATION OF BACKWARD CHILDREN IN THE PUBLIC SCHOOLS. We have had occasion to express our views in this Journal on the subject of education as it is doled out to all children in Public Schools. We examined the proposition of the "backward" school children in relation to the wholesale instruction in the schools given to all children alike and demonstrated the fact that moral deviation of many "backward" children may be traced to lack or misunderstanding by educators of what constitutes "an education." We have made the claim that literacy did not always represent an education and that if useful manual training were introduced into the curriculum of the Public Schools, many of the children said to be "slow in learning at school" might graduate from the latter fully prepared to honorably face the world in the struggle for existence. We have presented this aspect of the school question in various papers and have been waiting for results. We feel much gratified, therefore, to learn that the New York Board of Education has finally made the first step towards bettering the position of the "backward" children who attend the Public Schools here. According to a circular issued by this Board, there have been established, in several schools, special classes for the instruction of children who, by reason of physical or other deficiencies, are unable to retain their places in regular classes. It is also stated in these circulars that it is the purpose of the

Board of Education to organize similar classes wherever the conditions demand them.

Dr. Elias G. Brown, of the Department of Physical Training, has been assigned to special duty, with reference to the ungraded classes and the truant schools. No statement is made regarding the much needed manual training of these children, which, according to our views and experience, should form the fundamental principle in their education. The fact, however, that some step has been made in the direction of considering the interests of these children makes their prospects more hopeful.

We trust that the Board of Education will steadily progress in this undertaking and will soon introduce into all schools practical and useful manual training.

THE TEMPERANCE QUESTION IN EUROPE. The French, Russian and German nations are keenly alive to the dangers of alcoholic intemperance. The marked sensitiveness on this subject is not the result of fanaticism, but of facts brought to light by clinical investigation. These investigations have shown that national intemperance leads to national decay,—directly by causing death through alcoholism, and indirectly by causing physical and mental decay of the offspring. None of the above named nations can afford to face the numerical reduction of the respective populations, consequent on national intemperance in the use of alcohol. The political existence of all these countries is a matter of figures—as applied to their respective populations. For this reason the Governments of these countries have been actively concerned in the propaganda of popular temperance. Russia is trying to supplant the thirst for alcohol by opening tea houses and soup houses for the poor; France is fighting her anti-alcoholic battle with lectures—both scientific and popular; Germany is intent on accomplishing the same aim by command: the Government will introduce in the Reichstag a bill, the essence of which is about as follows: saloon keepers are required to sell non-toxicants, such as lemonades, milk, coffee, tea and cold foods. Credit is forbidden, and the number of barmaids is limited. The bill was drawn up by the Imperial commission selected by the Ministers of the Interior and of Justice.

THE NEW YORK STATE REFORMATORY AT ELMIRA IS TO HAVE A NEW SUPERINTENDENT. Dr. Frank W. Robertson has resigned his position as superintendent of the New York State Reformatory at Elmira, and he is to be succeeded by Col. Joseph F. Scott, of Concord, Mass. Col. Scott is a friend of former Superintendent Z. R. Brockway. According to newspaper

reports, Gov. Odell has been anxious to have Col. Scott accept the position of Superintendent.

Mr. Scott is about forty years old and has a commanding presence. He was born in Craftsbury, Vt., and taught school for five years in that State. The greater part of his life has been spent in Massachusetts. Mr. Scott has for many years been interested in the question of penology, and three years ago was elected President of the National Prison Association. In 1901, he delivered a notable address in Kansas City, on the progress of penology. Since 1880, he has been associated with various Bay State reformatory institutions. He then held the position of Supervisor of the State Primary School, Monson. Later he went to Concord as Superintendent of the reformatory school there.

A REMARKABLE CASE OF ZOOPHILIA. A millionaire farmer of New Brunswick is having her live stock killed by anesthetics duly administered under the direction of a veterinarian. She is prominent in the Society of the Prevention of Cruelty to Animals, is a vegetarian and fond of all animals. Fearing that the animals belonging to her at present might fall into the hands of inconsiderate people, she has decided to put an end to the existence of her live stock in a gentle and scientific manner, as stated.

A PSYCHIATRIC INSTITUTE IN PARIS. The Ecole de Médecine of Paris has under its auspices a new teaching department, in which theoretical and practical instruction will be given in psychiatry. Advanced students and physicians, attending regularly the courses of legal medicine and psychiatry and passing successfully examinations in the same, will be granted special diplomas. The name of such a diploma is *Diplôme universitaire de médecine légale et psychiatrie*. Attendance of lectures and clinics is obligatory during two semestres. Candidates for this diploma are examined in medico-legale medicine properly speaking and in medico-legal psychiatry. Professors Joffroy, Brouardel, Dr. Paul Garnier and their associates are in charge of the various branches of teaching in the Institute. Medical persons attending the above mentioned course of study, but unwilling to submit to examinations, will be granted certificates of attendance.

ALONZO BLAIR RICHARDSON, M. D.—The death, this year, of Dr. Alonzo Blair Richardson is a great loss to the medical profession. He was born September, 1852, and devoted himself to the study of neurology and psychiatry. He had a remarkable career as an organizer of medical institutions, particularly those

destined to house the insane. He held many important positions as medical superintendent of hospitals for the insane. In 1899, he was appointed Medical Superintendent of the Government Hospital for the Insane, of Washington, D. C. Here, as elsewhere, he demonstrated his remarkable capacity for organization and construction. Through his efforts, Congress voted an appropriation of \$1,000,000 for the extension and improvement of this hospital. In medical literature, his name is a familiar one. He contributed numerous scientific papers on neurology and psychiatry. During his busy life he enjoyed unusual popularity among his associates.

The death of Dr. Richardson is indeed a great loss to the psychiatric world.

JANNAT ERNESTINE HILLS, M. D.—Dr. Jannat Ernestine Hills was born in 1861. She graduated from the Woman's Medical College of Pennsylvania in 1893. From the time of her graduation until her untimely death, she was an enthusiastic worker in medical institutions. She devoted herself to work in psychiatry. She served on the staff of the New York City Asylum for the Insane, at Hart's Island, and later on joined the medical staff of the Willard State Hospital, Willard, N. Y. She died in that institution after a short illness.

NEW SUPERINTENDENT OF THE GOVERNMENT HOSPITAL FOR THE INSANE, AT WASHINGTON, D. C. Dr. William A. White has been appointed Medical Superintendent of the Government Hospital for the Insane, Washington, D. C., to fill the vacancy caused by the death of Dr. Alonzo Blair Richardson.

THE LOCALIZATION OF THE MENTAL FACULTIES IN THE LEFT PREFRONTAL LOBE.—DR. CHARLES PHELPS: From the study of a series of hundreds of cases of injury to the frontal region of the brain, the following conclusions are presented:

1. The more absolutely the lesion is limited to the left prefrontal lobe the more positive and distinctive are the symptoms of mental default.
2. The integrity of the mental faculties remains unimpaired in right frontal lesion, though it involves the destruction of the entire lobe, or even extends to the entire hemisphere.
3. The exceptional instances in which seemingly opposite conditions exist, are always reconcilable, on more careful examination,

with the assertion of an exclusive control of the mental faculties residing in the prefrontal region of the left side.

The author says that if the same nature and degree of proof which is deemed sufficient for the localization of other cerebral functions may be accepted in case of the mental faculties, their centre of control has been established.

The number of cases cited in support of these views are eight hundred, of which three hundred were subjected either to operative or post-mortem inspection. The author claims that if cases are recorded in which lesions of the right prefrontal lobes were responsible for mental impairment, they should be considered in a manner similar to that in which we consider cases of aphasia due to lesions in the right cerebral hemisphere.

The loss of sphincteric control in cases of lesions of the left prefrontal lobes is due to impairment of mentality. Sphincteric control, however, is characteristic of all cerebral lacerations. This impairment is diagnostic rather of the nature than of the seat of the lesion.

Delirious manifestations are mostly due to general cerebral lesions, such as hyperemia, edema or cortical inflammation. In left frontal injury these manifestations are in direct proportion to the extent of the injury. As delirium is a mental disorder, the author suggests that it be studied in connection with disturbances of the left frontal area.

Considering the relation of consciousness to mental activity, the author says:

1. Mental activity may exist when consciousness is abolished. This happens in dreaming, in the unconscious condition of general anesthesia and in the hypnotic or somnabulistic state.

2. Consciousness may exist when the mind is wholly inactive. In some cases of cerebral traumatism consciousness is in part regained, as shown by the feces and by responses to cerebral stimulation, when no signs of intelligence can be obtained.

If consciousness and mind may exist independently of each other, it is remarked, they certainly are not convertible terms.

3. The traumatic structural alterations by which consciousness is impaired or destroyed, and by which mental action is disordered, are different in character and extent. Mental disorder or default results from a limited lesion of a specialized area, which, in fatal cases at least, is usually destructive. Consciousness, on the contrary, is destroyed in greater or lesser degree by a general lesion that inhibits the cerebral nutritive processes, and is effective according to its extent, without deference to the region involved. This fact is pathological proof that the conclusion reached on other

grounds, that consciousness is independent of mental activity, is correct.

Coming from the pen of a surgeon of a world-wide reputation, these clinical statements certainly merit careful attention (*The American Journal of the Medical Sciences*, April and May, 1902).

THE PATHOGENESIS OF DOUBT IN PSYCHASTHENIA.—DR. NICOLA MAJANO: Delirium of doubt is most probably due to an impairment of the power of psychic representation. Clinical cases are cited in support of this proposition. Thus, one patient, when he shut his eyes, could not possibly represent to himself the outlines and forms of objects well familiar to him. A more exaggerated form of the same defect was observed in another instance: The patient could not recognize his physician whom he saw every day. He could not recognize his appearance, but his voice was quite familiar to the patient. Likewise, the appearance of his mother, brothers and sisters were new to him. Seeing a cat, he said that its form was new to him; but the touch of its fur was quite familiar to him. The author ably demonstrates that in cases of this kind the sense of touch and other senses may remain intact, while the sense of visual representation of persons and objects is impaired. This impairment is the cause of the delirium of doubt in question. When such a subject drops a letter into a letter box, for instance, he doubts having dropped it into the box because of his defective sense of visual representation: The shape of the letter is non-existent to him as soon as he has dropped it into the box. Consequently, he doubts having dropped it into the box. The author believes with Wilbrand that the occipital lobe is the seat not only of the centre of visual perception, but also of that of visual memories. He then demonstrates the relation of the centre of visual memories to obsessional doubts and similar manifestations (*Rivista di Patologia nervosa e mentale*, fasc. 8, 1903).

Revue de Psychiatrie, Vol. XI., No. 6:

1. SYPHILIS AND PSYCHOPATIAS.—M. GALIANA considers syphilis in its relation to psychoses from three points of view: In its relation to ordinary psychic troubles, as regards syphilitic psychoses properly speaking and the relation of syphilis to general paralysis.

1. SYPHILIS AS A COMMON CAUSE.—Syphilitic subjects may manifest various psychoses, without there being any clinical relation between these and the specific disease; similar psychoses may take place in subjects free from syphilis. Never-

theless, during its early part of the second stage, syphilitic infection is apt to awaken certain psychopathic tendencies of the degenerate and even be the cause of delirious manifestations. Mental troubles thus awakened may sometimes persist permanently. Such occurrences, however, are true of the degenerate properly speaking. The syphilitic infection seems to act only as a common exciting cause and is apt to bring about various other nervous disturbances, such as neurasthenia and hysteria, without delirious manifestations.

2. SYPHILITIC PSYCHOSES PROPERLY SPEAKING.

—These insanities are directly caused by syphilitic infection of the brain. Clinically, they are generally of a demential, delirious or motor nature. Although the motor manifestations have no direct bearing on the psychic condition, they are of much value diagnostically. Demential and delirious manifestations may be intertwined. Dementia of syphilitic nature has no special characteristics and does not differ from other dementias. The delirium differs according to the case. The motor troubles are only symptoms of a syphilitic nature and they occur in order of frequency as follows: ordinary hemiplegia, paralysis of the external oculo-motor and the pathetic nerves, monoplegias and association paralysis. The motor troubles may also be manifested by convulsions, either general epileptic or Jacksonian. Although syphilitic epilepsy is generally accompanied by mental disturbances, the co-existence of the two affections is not necessarily fatal. The author reports a case of syphilitic epilepsy in which the intellectual function was intact.

Diffuse motor disturbances, such as general tremors and disturbed motor co-ordination, if combined with syphilitic dementia, with or without delirium, so mask the syphilitic affection that it is apt to be mistaken for general paralysis, known as syphilitic pseudo-general paralysis. Mairet considers that this condition is the terminal form of all the syphilitic psychoses. At all events, the evolution of syphilitic dementia, accompanied by motor or delirious symptoms, is either slow and progressive or rapid and characterized by apoplectiform attacks. In some cases its course is interrupted and it may persist in an attenuated form for many years. The rapid course is particularly apt to take place in cases not subjected to specific treatment.

The diagnosis of this affection may be easy, difficult or even impossible. The greatest difficulty is found in cases where the psychosis is not accompanied by cerebral symptoms.

3. SYPHILIS AND GENERAL PARALYSIS.—It is generally admitted now that a large number of general paralytics have

syphilitic parents. As regards the direct relation of syphilis to general paralysis, the author has failed to find it: he has seen a large number of general paralytics who were not syphilitic. He believes that general paralysis is not of syphilitic nature. Nevertheless, the prevalence of syphilitic antecedents among the general paralytic subjects, points to the fact that syphilis has some relation to the disease. Most probably syphilis acts either by predisposing the organism to the disease or by exciting the organism that is marked by predisposition to general paralysis.

It has been claimed by some that syphilitic subjects became general paralytics because their syphilitic infection had not been treated properly. The author disagrees with this view of the matter and cites two cases, in which paralytic dementia took place regardless of thorough anti-syphilitic treatment administered in a most thorough manner. He further believes that anti-syphilitic treatment during the course of general paralysis is inefficacious and even harmful: in some cases the physical and mental conditions are rendered worse by anti-syphilitic treatment.

2. SENILE AMNESIA AND HYSTERICAL AMBULATION. —DR. DUPRAT points out the fact that hysterical and epileptic ambulation has been studied particularly in its relation to the amnesia after the ambulatory act. He has studied senile amnesia preceding the ambulatory act and has shown that there exists an intimate causal relation between a certain loss of memory and the ambulatory impulse prompting the subject to tramp and travel. Thus, he cites cases of senile mental impairment with amnesia of recent events, while the memory was perfect as regards events of long standing. In this manner the patient was unable to act in accordance with his present circumstances—these being alien to him—while he continually referred to some parcel of land that belonged to him and made attempts to journey to it; this act was out of keeping with his surrounding conditions and requirements.

In the epileptic, morbid ambulation may be due to an irresistible impulse, in other psycho-neuroses it may be due to morbid ideation, but in the hysterical it is intimately related to the condition of the memory immediately preceding this ambulatory act. Indeed, in some of these cases retrograde amnesia extends to the day preceding the ambulatory act. Going back to the senile subject, in whom amnesia is a necessary prelude to the ambulatory act, it may be said that the ambulatory manifestation is the consequence of a morbid appetisation for the act, which, in its turn, is frequently caused by a temporary or permanent disappearance of the memory of recent events. Thus, in senile amnesia, which is

practically reproduced in hysterical amnesia, the image of the past directs the acts of the present, without regard to their bearing on present conditions.

3. RESEARCHES IN THE LIGHT REFLEXES.—DRS. TOULOUSE AND VURPAS have found a notable quantitative as well as qualitative difference between the pupillary reactions when examined by ordinary or intense light respectively. When intense light is used in the examination, the pupil contracts suddenly, almost as rapidly as are the reactions of accommodation; whereas a weak light causes slow and almost ataxic pupillary contraction. Besides, the changes caused by intense light are definite: contraction under the influence of this light and dilatation when the eye is exposed to darkness. The action of reduced light is quite different: if placed in darkness after its action, the pupil undergoes a series of dilatations and contractions before it becomes finally dilated.

The author suggests the use of both lights in succession, if a fine examination of the pupil is desired. The weak light should be furnished by a pocket lantern and the broad daylight out of doors should be used as a strong light. Examinations for abolition of reflexes should be made by this light.

From the American Journal of Insanity, No. 1, 1903:

1. PRESIDENTIAL ADDR SS.—DR. ALDER BLOOMER: We are in need of the knowledge of a proper method for the study of psychiatry. The Pathological Institute of the New York State Hospitals for the Insane is a useful institution. The present system of centralizing power in the hands of the New York State Commission in Lunacy is deplorable. Experience in what is called practical politics has taught us the evils that are bound to come from such centralized power as is vested in the State Commission in Lunacy. If the medical men under the rule of this Commission have it in their natures to rebel against the submission forced on them by the Commission, they may regain the common privileges that have always been accorded to medical men. According to Mr. F. B. Sanborn's statistical studies, insanity is on the increase in proportion to the increase of population. In some countries and States, however, the increase of insanity exists even when the population remains stationary. In Ireland, for instance, there is a constant increase of insanity, although the population is decreasing. The States of Maine and Vermont also have a decreasing population and an increasing proportion of the insane. In all New England there is about one insane person to 307 inhabitants. In New York the ratio of the insane to the sane population is

about one to 300. We are not doing anything to prevent this increase of insanity. The best way to diminish insanity is by its non-production. Preventive psychiatry should have a prominent place in our work. In some States, as in Connecticut, marriage between mentally invalid persons is forbidden by the law. North Dakota is passing laws prohibiting marriage between persons afflicted with infectious venereal diseases, tuberculosis, epilepsy, hereditary insanity and confirmed inebriety. Similar legislation has been attempted in other States as well as in Europe. Consanguinous marriage should not be contracted. Fifty per cent. of the population of the New York State Hospitals for the Insane is of foreign birth. The exclusion of immigrants who become insane within five years of the date of their arrival in the United States is commendable.

2. RESULTS OF BRAIN SURGERY IN EPILEPSY AND CONGENITAL MENTAL DEFECT.—DR. WILLIAM P. SPRATTLING:

The results of brain surgery in thirty-three cases of epilepsy are given. Absolute cure did not result in any of the cases. Improvement followed in 4 per cent. of the cases, but this improvement should not be ascribed to the operative interference alone; the general tonic treatment was largely responsible for the improvement. Reviewing the results of similar operations performed by different authors, it is concluded that both in epilepsy and in idiocy and imbecility the diffuse cortical conditions cannot be removed by the knife. The statistical results of brain surgery in 111 idiot and imbecile children are as follows: 19, or 17 per cent., died in consequence of the operation or soon after; 25, or 22, 5 per cent., were operated upon with no results; 10, or 9 per cent. were operated upon with slight results, but not satisfactory ones; 24, or 21, 5 per cent., were improved in given ways; 30, or 27 per cent. had improved, but the nature of the improvement is not specified; 3, or 3 per cent., are cited without any particular report. In 83 cases the results were more permanent: 24 per cent. died, 65 per cent. were unimproved, and the rest were improved. The improvement consisted in the little patients being quieter. This condition following an operation may, however, indicate that dementia is only accentuated. Rational treatment of congenital mental defects seems to be the only treatment.

3. ADDITIONAL NOTES UPON TENT TREATMENT FOR THE INSANE AT THE MANHATTAN STATE HOSPITAL, EAST.—DRS. A. B. WRIGHT and C. FLOYD HAVILAND:

Three tents are in use on the hospital grounds even during the winter months. The tents are large enough to hold

twenty beds each. One of the tents is used as a dining room. Large stoves are used for heating. Eighty-four phthisical patients had been treated in the tents during the past year. Twenty-three of these patients died from various causes. One of the patients thus treated recovered from the active phthisical process and 13 cases improved, the disease seeming to be permanently arrested. The authors consider the above results encouraging and advocate the use of the tent treatment for the insane.

4. A CONSIDERATION OF THE HEREDITARY FACTORS IN EPILEPSY.—DR. R. E. DORAN: A study of heredity in the history of 1,300 epileptic patients in a public institution shows the following results:

1. Although it was impossible to secure data in many cases, a definite history of the various neuroses or alcoholism was found in 46.5 per cent. of the total number of cases.
2. Alcoholism, epilepsy and insanity combined were responsible for 38.6 per cent. of the total number of cases.
3. Parental alcoholism existed in 18 per cent. of all the cases.
4. Diseases other than those connected with the nervous system have little hereditary influence in epilepsy.
5. The age of onset is influenced by the character of the heredity.

5. PREVALENCE OF INSANITY IN CALIFORNIA.—DR. JOHN W. ROBERTSON: In 1851, two years after being admitted as a State, California had a population of 130,000 and only six persons were registered as insane, thus giving a ratio of 1 insane person to 21,000 persons. In 1860 the ratio rose to 1 in 1,000; in 1870, soon after the completion of a connecting railroad, one insane person was tabulated for every 500 of the population. At the present time the registered insane number 5,650, or 1 to 260. One of the reasons for this apparently alarming ratio is that the hospitals for the insane are under State care and the laws governing the commitment of patients have been liberal. Besides the insane, these hospitals house the feeble minded, the epileptic, etc. Based on total admissions, the ratio for foreign-born to native born is 58 to 42. Based upon admissions for the past two years, it is 45 to 55. This is to a certain extent due to a smaller foreign immigration and a larger influx from other States. In the asylums of Northern California, where immigration is not so marked, commitments of natives of the United States was but slightly in advance of that of the foreign-born, but in Southern California, of 450 admissions, only 149 were foreigners. Those born in California constitute 50 per cent. of the population and

furnish only 17 per cent. of the insane. Analyzing the percentage of insane of foreign birth, it should be borne in mind that the foreigners are mostly all adults, while the total native population comprises children,—who do not furnish insane subjects for asylums. Intemperance is a great factor in the production of insanity. It appears that women are more stable mentally than are men. Of all the foreign-born, 1 in 110 is insane. The Chinamen are less subject to insanity than are other foreigners, only 1 to 200 being insane. The French and the Italians are mostly maniacal; a melancholic Irishman is but rarely found. The Germans and other Northern subjects are given to melancholia and suicide. National drinks may be responsible for these peculiarities. The ratios of the insane to the sane people in the various States are given as follows: California, 1 to 260; New York, 1 to 330; Massachusetts, 1 to 370; Pennsylvania, Michigan and Illinois, 1 to 550; Georgia, 1 to 960; Texas, 1 to 1,600; Tennessee, 1 to 5,000.

Crossing a State line can hardly be responsible for such vast statistical differences on the same subject. The reason of the divergence probably lies in the various methods of registration and care for the insane. The better understanding of insanity and insane tendencies to-day, and the treatment of the neurotic children should tend to lessen the spread of insanity.

6. THE NATURE AND GENESIS OF AN INSANE DELUSION. —DR. J. W. WHERRY: A delusion is an idea born in sub-conscious cerebration; projected into consciousness in times of stress; believed implicitly and strenuously defended by the originator, but which no one else will accept as true.

7. EXAMINATION OF THE GENERAL CEREBRO-SPINAL FLUID IN GENERAL PARALYSIS.—DR. JOST D. KRAMER: The results confirm the experiments of Joffroy and Mercier, published in the *Journal of Mental Pathology*, Oct.-Nov., 1902. Kramer was the first to practice lumbar puncture in the American hospitals for the insane.

8. HOSPITAL PROVISION FOR INSANE CRIMINALS. —DR. H. E. ALLISON: Prison officers should exercise great vigilance in the detection of insanity among the prisoners serving time. Special hospitals should be erected for the criminal and dangerous insane. Such subjects should be treated in such institutions until they are fit to be released. The individual histories of these subjects should be carefully studied in relation to the exclusion laws of insane aliens.

American Journal of Insanity, No. 2, 1903:

1. THE PATHOLOGY OF ACUTE DELIRIUM.—DR.

H. A. TOMLINSON: The cellular changes in the cerebral cortex during acute mania are similar to those due to exhaustion. They are extreme manifestations of the changes that presumably take place in the cell as the result of habitual activities. There is at first blood stasis, then edema from lymph stasis; finally, there is disintegration of the structure of the cell. The disintegration of the cell is probably the result of the combined actions of overwork and auto-intoxication. The intoxication may also be uremic or bacterial. The changes vary in degree, not on account of the differences in the different kinds of intoxication, but always in direct proportion to the degree of instability and the amount of mental and motor activity. And the greater the degree of nervous instability, the easier the delirium is set up and the more violent it is. A proof of this statement can be found in the similarity of the histological changes in the brain in the delirium of general sepsis, uremia, alcoholism and in so-called delirious mania. Even in inflammatory cases, where there is an acute encephalitis or periencephalitis, the character of the changes in the brain cells does not differ, although their morphology may. The intoxication from the local sepsis is more direct; and, besides, the changes in the membranes and the blood supply interfere more seriously with nutrition and elimination, and as a result the process is more intense. But the disintegration, in any case, will be the result of overwork and excessive activity of the cell, and not the cause of it.

2. RECOGNITION OF THE INSANE IN PENAL INSTITUTIONS A FACTOR IN DIMINISHING CRIME.—

DR. FRANK W. ROBERTSON: The transfer of defectives with criminal tendencies to special institutions where they can be treated and detained for a proper length of time would decrease the circulation of such subjects in society. Prior to sentence such subjects should be examined by alienists and their medical reports submitted to the judges. Competent alienists should be appointed to do work in all penal institutions. If this measure is impracticable, an alienist should be appointed in each State for the purpose of visiting its penal institutions. The mentally defective can thus be grouped and transferred to the proper institutions for treatment.

3. THE FLUCTUATION OF INSANITY IN CONNECTICUT AS SHOWN BY A STUDY OF CASES ADMITTED TO THE CONNECTICUT HOSPITAL FOR THE INSANE.

—DR. ROLLIN H. BURR: The foreign element shows a larger

proportion of insane than does the native. The native insane, however, have increased to a considerable extent. The Irish show the largest percentage of the insane. The Germans are next in proportion. The native Americans furnish the least insane population.

From *Annales Medico-Psychologiques*, No. 3, 1903:

1. PSYCHIC DISTURBANCES OF THE DEGENERATE AT THE AGE OF SENILITY.—DR. SOUTZO: Senile subjects with the taint of hereditary degeneracy are apt to manifest psychoses in their acute forms. The author demonstrates the utility of properly recognizing these clinical manifestations and shows that their prognosis is favorable in a large number of cases.

2. NEUROSIS OF ANGUISH.—Dr. CAPGRAS: In 1895, Freund described this neurosis as a special syndrome of generic origin, both in man and in woman. Hartenberg does not admit this limitation in its causation, while Pitres and Régis refuses to consider it as an independent affection. The author cites instructive cases, from which he concludes that the disease is an intermediary condition between neuroses and psychoses, the basis of which is anxiety.

Proceedings of the Medico-Psychological Society:

3. UNILATERAL SPASMS OF THE ABDOMINAL MUSCLES IN A CASE OF GENERAL PARALYSIS.—DR. M. TRENEL: An epileptic attack of the Jacksonian type on the right side of the body was followed by spasms of the abdominal muscles on the same side. These lasted some nine days. The right side of the abdomen also presented vaso-motor disturbances. Complete amnesia also took place. An ordinary focal lesion is supposed to have taken place.

4. LOSS OF MENTAL VISION IN HYSTERICAL SUBJECTS.—DR. PAUL SOLLIER: This trouble may be caused either by obsessional persistence of a presentation, obscuring all other mental presentations, or by impairment of the faculty of mental presentations. Both conditions are the consequences of a peculiar physiological condition of the brain. A clinical case illustrates these conditions.

Discussing this subject, Dr. Briand remarked that he had had a similar case in his wards. The patient in question was a nurse in a hospital, where her mother had been treated and died. While an autopsy was being performed on the body of the patient's mother, the patient, unaware of the incident, carelessly strolled into the

room. Shocked by this scene, she fell in a hysterical fit. She had never before had any hysterical trouble. She then had a series of delirious manifestations and finally became victim of an obsessional visual hallucination: She was haunted by the frightful vision of her mother's body, extended on the table, with the viscera protruding through the opening in the abdominal wall. On the disappearance of this hallucination, the patient was a simple hysterical subject, with no recollection whatever of the scene in the amphitheater. The anguish caused her by the reappearance of this hallucination finally led her to commit suicide.

5. THREE CASES OF MIGRATION DEGENERATES.

—DR. WAHL reported three typical cases of migratory degenerates. Foville was the first to apply this term to a class of degenerates who, under the influence of their morbid condition, incessantly change from residence to residence, from city to city and from country to country. In 1887, Tissié called them insane travelers. The cases presented by the author are particularly instructive from the medico-legal point of view. These subjects had been inmates of prisons some twenty and thirty times in the various countries they had visited until their insanity was finally discovered.

DR. BALLET: The common type of these cases is the vagabond. Then, there is the persecuted migrator, the demented, epileptic and hysterical migrator. There is also the paroxysmal migrator. The latter is generally normal in behavior until the impulse to travel overtakes him. He then steals money, if necessary, and travels for days, weeks and even months. Some of these cases are inclined to travel on foot, without partaking of nourishment for many days and nights at a stretch. One case, personally known as Dr. Ballet, was physically emaciated, and as soon as he started on his morbid pilgrimage, he suffered from pulmonary hemorrhages. This did not prevent him from traveling on foot from Brussels to Vienna and from Vienna to Moscow. The question of nutrition in such cases is of interest.

DR. BRIAND: These migrators also seem to get along without sleep. One personal case worked during the whole week until Saturday evening, when he started blindly to walk off in any direction that happened to face him. He thus kept on walking until Sunday noon, when he suddenly retraced his steps and returned to his work Monday. He neither ate nor slept during these tramping spells. Another personal case tramped every Saturday evening from Paris to Brest; remained there some two or three hours and returned to Paris, without having eaten or slept during the tramping spell. The son of this man suffered from similar spells.

DRS. THIVET and BALLET: Patients with circular insanity often present tramping spells during the period of excitation.

6. A CASE OF SENILE GENERAL PARALYSIS MICROSCOPIC EXAMINATION OF THE NERVOUS SYSTEM. —DRS. G. DOUTREBENTE and L. MARCHAND had observed cases of senile general paralysis; one case was that of a man sixty-five years of age. The diagnosis was particularly difficult because he had arterio-sclerosis. The microscopic examination of the brain showed lesions typical of general paralysis. A point of interest was the fact that although the patient suffered from marked arterio-sclerosis, the autopsy showed that his cerebral arteries were particularly free from this affection. Dr. Ballet's case was sixty-one years old. In this case general paralysis was associated with cerebral atheroma.

7. A CASE OF SENILE GENERAL PARALYSIS.—DRS. TOULOUSE and MARCHAND had a case of senile general paralysis in a woman, seventy-two years of age. The autopsy confirmed the diagnosis. She also suffered, during her illness, from aphasic disturbances, particularly characterized by verbal deafness. The autopsy showed a focal lesion of the first left frontal lobe.

8. POLYMORPHOUS PSYCHIC DISTURBANCES WITH IMPULSES IN A HYSTERICAL SUBJECT FIFTY-EIGHT YEARS OF AGE.—DR. WAHL presented this case because morbid impulses are rare in subjects of advanced age. In so far as the impulses are concerned, the case resembles those reported by Dr. Louise G. Robinovitch.

9. A GENERAL PARALYTIC WITH HALLUCINATIONS. —DR. RENE SEMELAIGNE presented this case. Dr. Dheur also mentioned having had such a case with hallucinations of hearing. Dr. Boissier had observed a case in Dr. Magnan's wards. This patient had hallucinations of all the senses excepting that of sight.

10. HALLUCINATORY DELIRIUM IN A SUBJECT WITH BRIGHT'S DISEASE: IMPROVEMENT AFTER TWO LUMBAR PUNCTURES. —DR. A. VIGOUROUX: Fifteen c.c. of the cerebro-spinal fluid was drawn. The cytodiagnosis showed an absence of leucocytes. The liquid contained 1.40 grams or albumen per litre, or about the normal quantity. The patient improved considerably after the puncture. Eight days later, a second puncture was made, 33 c.c. of the fluid being drawn. The patient rapidly improved after this puncture and the delirium disappeared.

Theorizing on the improvement of the cerebral symptoms, the

author suggests the following: Either the cerebro-spinal fluid in the course of Bright's disease is eminently toxic and the withdrawal of a certain quantity of it relieves the nervous system of a given amount of toxins; or, if the delirium is due to toxins in the blood, the hypertension favors vascular stasis and consequent hypertoxicity of the blood. The removal of a given quantity of cerebro-spinal fluid relieves the undue tension, permitting the circulation to assume its normal course.

DR. LEGRAIN said that he had had a case of Bright's disease that had developed epileptic attacks. He frequently practiced lumbar punctures on this case because the patient always felt much improved after them. The epileptic attacks also diminished in frequency under this treatment.

TRAUMATISM OF THE SPINAL CORD.—DR. D. JAN-POLSKI: One patient sustained a complete transverse section of the spinal cord by falling off a roof of a one-story building. He landed on his back, the sharp edge of the axe imbedding itself in his spine. On examination, the division of the spinal cord could easily be seen. After the accident, the patient suffered from complete paraplegia and abolition of sensibility of the body below the line of the wound. His temperature remained 40-41 degrees C., but the body below the line of the wound was cold and cyanosed. There was also retension of urine and feces. The cerebro-spinal fluid copiously saturated the dressings during the course of the illness that lasted 15 days. The remarkable features in this case were the unusual trophic changes of the entire body: Bodily wasting was marked even on the second day of his illness; his tissues seemed to melt away not only by wasting of the body in general, but also by the sloughing of the paralyzed lower half of it, the wounds penetrating to the bones. The illness ended in death fifteen days after the accident.

Another case sustained a fall from the top of a house, striking the ground, head first. Immediately after the fall all voluntary movements were abolished, excepting those of the anterior region of the shoulder. Trophic changes were immediately noticed on the face and nose. The patient was perfectly rational until death took place, on the day following the accident.

The author thinks that the high temperature in the first case was due to the suddenly increased chemical changes, and calls attention to the importance of the trophic centres, of which we do not know enough anatomically and that are known to us only from the physiological point of view (*Voprossi Nervno-Psychicheskoi Medisini*, Vol., IX, 1903).

PARALYSIS ALIENORUM PROGRESSIVA FAMILIALIS.
—DRS. A. A. ARTEMOFF and A. H. BERNSHTEIN: Cases of so-called family general paralysis, or general paralysis affecting two or more members of the same family, have been reported by different authors. The histories of these cases lead to the supposition that members of such families are peculiarly predisposed to general paralysis. Syphilis, either hereditary or acquired, may or may not be present. There are some cases on record of family general paralysis in which the disease took place during adult life, —when hereditary syphilis is out of question, and who were free from acquired syphilitic affection. General paralysis should be considered as a disease affecting the whole system. If the condition of the entire system is undermined and especially predisposed to general paralysis, syphilitic infection will surely produce the disease. The system of such predisposed subjects may be infected through the gastro-intestinal tract or otherwise (*Journal Imeni S. S. Korsakova*, No. 4, 1903.)

DENDRITIC RAMIFICATIONS OF THE NERVE CELLS OF THE CEREBELLAR CORTEX IN HIGHER ANIMALS IN RELATION TO CELLULAR FUNCTION AND DENDRITIC FORMS.—DR. GOUREVITCH: Complex ramification of the nerve cells considerably increases the exposure surface of the nerve elements. This increased exposure surface corresponds to an increased functional complexus and development of the cellular organism. Drs. Lenhossek, Lugaro and Soukhanoff have practically expressed similar opinions in their works. It is hardly probable that the extensive dendritic ramifications are intended for nutrition of a cell proportionately so small as is a nerve cell. These ramifications are probably intended for the production, accumulation and storing of nervous energy. The highly enlarged nerve surface in the higher animals thus corresponds to a highly perfected functional development. It would be interesting to find the functional significance of nerve cells according to their dendritic ramifications (*Journal Imeni S. S. Korsakova*, No. 4, 1903).

THE NEED OF A WARD IN THE GENERAL HOSPITALS FOR THE TREATMENT OF CASES OF MILD AND CURABLE INSANITY.—DR. JOHN H. W. RHEIN: At present many cases of incipient insanity become incurable because they are not treated early enough in a proper manner. In the general hospital known as the "Royal Charité," in Berlin, a special

ward is set aside for the treatment of the curable insane. This department has been in existence for over 100 years. No such department exists in connection with the general hospitals either of England, France or the United States. Dr. Macpherson, Sir John Sibbald and Dr. Clouston made attempts last year to create such wards in connection with the general hospitals in London. The practicability of this plan has been demonstrated by Springthorpe, who has for years successfully treated insanity in the wards of the Melbourne Hospital, in Victoria, which is a general hospital. Dr. Daniel D. Brauer has done the same thing in Chicago. It is claimed that the provision in question would diminish the amount of mental diseases, because cases could then be treated in time and prevented from becoming insane (*American Medicine*, Dec. 19, 1903).

THE RETIREMENT OF DR. EDWARD COWLES FROM THE SUPERINTENDENCY AT THE McLEAN HOSPITAL, MASS.—*The Boston Medical and Surgical Journal*, Dec 17, 1903, reports that at a meeting of the Trustee of the Massachusetts General Hospital, held on Friday, Dec. 11, 1903, the following votes, relating to the retirement of Dr. Edward Cowles, of the McLean Hospital, were placed upon their records:

“Voted: That the Trustees of the Massachusetts General Hospital, in grateful recognition of the long and successful administration of the McLean Hospital by Dr. Cowles, place this minute upon their records. Dr. Cowles entered the service of the hospital as Superintendent of the McLean Asylum, Dec. 11, 1879, and is the first of its officers to take advantage of the scheme of retiring allowances adopted by the Board on July 14, 1903. He came to the institution a well trained and successful hospital administrator. During the twenty-four years of his devoted and efficient service, the Asylum has been transformed into a hospital; the attractive and admirably planned establishment at Waverly has taken the place of the unsatisfactory and outworn quarters at Somerville; valuable researches into the nature and treatment of the most terrible of human ailments have been made; and improvements in the care of the insane have been made possible by the knowledge so acquired. At all times he has been the patient and persuasive advisor of the Board and its trusted and efficient agent.

“Voted: That a Board of consulting physicians for the McLean Hospital be hereby created.

“Voted: That Dr. Edward Cowles be appointed a member of the Board of Consulting Physicians for the McLean Hospital.”

BRAIN WEIGHTS IN RELATION TO OCCUPATION.—

DR. MATIEGKA, of Prague, has published in the *Revue scientifique*, the results of his investigations of brain weights in man. The largest brain he has come across weighed 1,820 grams. It had belonged to a man, 22 years of age, of large build, who measured 1 metre and 80 centimetres. The heaviest brains of women did not surpass 1,500 grams. The smallest of these brains weighed 1,020 grams; the subject from which this brain was taken was twenty-five years old when she died, and measured 1 metre and fifty centimetres. Senile brains, especially those of women, weighed still less. A brain taken from a woman, who had died at the age of 89 years, weighed 1,000 grams. The average male brain weighs 1,400 grams, and the average female brain weighs 1,200 grams. These weights apply to subjects between 25 and 59 years of age. Brain weights of some noted individuals are given as follows:

Konstantinoff, Bulgarian romance writer	1595 grs.
Smetana, musical composer (paralytic dementia)	1250 "
Kolar, Bohemian dramatist, 84 years of age	1300 "
Marie Bittner, actress, 44 years of age	1200 "
Savarik, statesman	1512 "

The weight of Savarik's brain was obtained by Manouvrier's method, according to the evaluation of the cranial capacity.

Tabulation of 235 brain weights, according to occupation, gave the following results:

Occupation.	No. of cases.	Average weight.
Day workers	14	1.410 gr. 0
Day laborers	34	1.433 gr. 0
Porters, supervisors, etc.	14	1.345 gr. 7
Mechanicians, etc.	123	1.449 gr. 6
Clerks, tradesmen, professional musicians, etc.	28	1.468 gr. 5
Physicians and persons whose occupation required a university education	22	1.500 gr. 0

Brains obtained from subjects who had been addicted during life to the use of alcoholic beverages were particularly deficient in weight (*Annales medico-psychologiques*, No. 2, 1903).

BLOOD-SERUM THERAPY IN GENUINE EPILEPSY ACCORDING TO CENI.—

DR. WENDE: In some cases the serum was drawn from the patient's own blood, while in others the serum was obtained from the blood of other epileptic subjects. The injections were given in increasing doses—from 2, 4, 6, 7, 10

to 20 c.c. A larger single dose than 20 c.c. was never given by the author. The bromide treatment was withdrawn preparatory to starting the serum treatment, and the number of attacks increased in all cases before the serum treatment was given. The author considers that the results from the serum treatment were most gratifying: The number of epileptic fits was decreased in the majority of cases, the body weight of the patients increased with the treatment and the psychic condition was also improved in cases that were not chronic demented. In two cases, however, the serum acted as a toxic agent, in a manner similar to that recorded by Ceni himself. Withdrawal of the serum treatment was followed by a return of the fits, but in a lesser degree than was the withdrawal of the bromide treatment. The author has not tried the serum treatment in cases afflicted with recent epilepsy; nor has he experimented with different dosages than those indicated (*Psychiatrisch-Neurologische Wochenschrift*, No. 36, 1903).

LUMBAR PUNCTURE IN ACUTE UREMIA.—DR. M'VAIL thinks that the uremic manifestations, such as convulsions and coma, during the course of acute Bright's disease are not due to uremic poisoning of the nervous system, but to a rapid augmentation of intra-cranial pressure causing cerebral edema and distension of the central canal of the spinal cord. He published his views in the *Lancet*, 1903. Tennessen has long since expressed similar views on the dependence of local paralyses on cerebral edema. The author, therefore, practiced lumbar puncture in a case of acute Bright's disease with a view to relieving the convulsive and comatous symptoms. Some 25 or 30 grammes of fluid were drawn and the desired effects were obtained: The convulsions disappeared and the patient regained consciousness (*La Médication Martiale*, Dec. 1903).

ACROMEGALY WITH EPILEPSY.—DR. JULIUS GRINKER: Cases of acromegaly with epilepsy are rather rare, there being only some 150 to 200 reported in medical literature. The case published by the author is forty-nine years old, and, according to the history, the disease set in eight years ago. At that time the patient sustained some mental shock at sea. The patient denies having had syphilitic infection and claims to have been in perfect health all his life. The disease set in insidiously and the epileptic fits developed five years ago (*The Chicago Medical Record*, No. 6, Vol. XXV).

JACKSONIAN EPILEPSY. CEREBRAL SYNDROME. TREPHINING IN THE ROLANDIC REGION. DEATH FROM PNEUMONIA. AUTOPSY; CEREBELLAR TUMOR.

—DRS. G. LEMOINE and L. MAYER: The authors report a most instructive case, as the heading indicates. All the symptoms and signs presented by the patient pointed to the existence of a tumor in the Rolandic region. The diagnosis seemed to be a correct one from all points of view and particularly because the beginning of the disease dated from the time the patient had received a traumatic wound of the left parietal region. This accident was followed by typical cerebral manifestations proper to tumors of the Rolandic region. The autopsy revealed a perfectly normal brain, but there was a tumor of the right cerebellar hemisphere (*Journal Médical de Bruxelles*, Dec. 3, 1903).

BOOK REVIEWS.

INTRACRANIAL TUMORS AMONG THE INSANE. A STUDY OF TWENTY-NINE INTRACRANIAL TUMORS FOUND IN SIXTEEN HUNDRED AND FORTY-TWO AUTOPSIES IN CASES OF MENTAL DISEASE. I. W. BLACKBURN, M. D., *Pathologist to the Government Hospital for the Insane*, Washington, D. C. Illustrated by thirty plates and sixty-five microscopical drawings. Washington: Government printing office, 1903. The author summarizes his work in the preface to it. Some of the main points therein brought out are as follows: The subject of intracranial growth is considered mainly from the standpoint of morbid anatomy and pathological histology. In some cases the patients were greatly demented on admission and could give no clear account of subjective symptoms; in some, the symptoms of brain tumor were obscured by predominating mental manifestations, and in others the growths were small and probably gave rise to no physical nor mental disturbances. In several cases the presence of intracranial growths was recognized by the characteristic symptoms, but in these cases it was not deemed wise to operate. In most instances it was found that either the size of the growth, its nature or its situation would have precluded an operation. Some of the dural growths might have been removed if they had been discovered while the tumors were small and had not penetrated and seriously damaged the brain. These tumors are most favorable for operation because they do not infiltrate the brain substance, are

sharply circumscribed, easily enucleated and non-recurrent after removal. Of the twenty-eight true tumors found, seventeen may be regarded as belonging to this class of growths, properly called spindle-celled endothelial sarcomata, usually of the dura mater. They originate as small wart-like growths from the inner surface of the dura mater and when favorably situated for operation, may be easily removed, in many cases with safety and the preservation of mental health. Malignant tumors that infiltrate the brain tissue are more difficult of handling by operative means. At the autopsies mentioned the author did not find many cases of tubercular disease of the brain and meninges. He claims that gross syphilitic disease of the central nervous system is also rare. In over 1,700 autopsies there was not one syphilitic growth of the brain that could be dignified by the name of tumor or gumma.

Three growths were found within the pituitary fossa, two of which involved the pituitary body. In none of these cases were there any evidences of acromegaly. Two of these tumors were adenomata of the hypophysis, while the nature of the third could not be determined on account of degeneration. No secondary deposits have occurred in the brain from the malignant tumors of other organs. In several cases tumors of different character co-existed with growths of the brain and dura mater. In one instance three tumors of different structure were found in the same subject. Osteomata in the form of exostosis of the inner table of the skull, and small, irregularly shaped, flat bone masses, usually of the falx, were quite common in the autopsies. The possible relation, the author says, of these growths to inflammatory diseases and to congenital errors of development would exclude them from the true neoplasmata.

The illustrations are neatly gotten up. The author deserves great credit for his valuable contribution to cerebral pathology in relation to mental affections as presented in this scientific volume.

ESSAI SUR LA PSYCHO-PHYSIOLOGIE DES MONSTRES HUMAINS. UN ANENCEPHALE ET UN XYPHOPAGE. N. VASCHIDE, *Chef des travaux du laboratoire de psychologie experimentale de l'Ecole des Hautes Etudes*, and CL. VURPAS, *interne des Asiles de la Seine*. The authors present a study of human monsters comprising an anencephalus and united twins. The first was closely studied by laboratory means during the two days of its existence, and important biological conclusions are arrived at. A microscopic examination

of the retina of this monster showed this membrane to be of normal structure. The brain was entirely absent. Ample evidence is brought to light, showing that intra-uterine infection was responsible for the monstrous birth. This was further demonstrated by the fact that the mother of this monster later gave birth to a normal child. Interesting physiological and psychological studies are presented of the Hindoo and Chinese twins. Some 171 pages are devoted to the study of xyphopagi. Dr. Doyen gives a vivid description of his operation on the "Hindoo Twins," Radica and Doodica, severing the membranous connection between the two sisters. Instructive considerations on the "Chinese twins" and other human monsters of this kind are presented from the anatomical, biological, physiological and psychological points of view.

The two authors are to be congratulated on the excellency of this unique volume.

UEBER DIE WIRKUNGEN DER CASTRATION.—DR. P. J. MOEBIUS. Carl Marhold, Halle a. d. S., 1903. The first chapter is devoted to the history of castration in man. This operation was particularly familiar to the ancients and it is even spoken of in mythology. In ancient times punishment and degradation was inflicted on male subjects by way of castration. Slaves were often castrated for the purpose of rendering them harmless as supervisors in harems. The history of the eunuch in the various countries and at various epochs is presented in a readable manner. The chapter treating of the effects of castration on the physical and mental conditions of the victim is instructive as well as interesting. The changes are particularly noticeable in subjects operated on when they are young. Among the various physical changes are those of the breasts. In man they become swollen and painful in some instances. The bones, muscles and other tissues also become affected. The eunuchs were rather of slender build. According to some authors, however, the lower animals are easily fattened after castration. In man, unsexing is followed by marked changes of the cranium in its occipital region. Cases are reported in which this region became flattened. This flattening is considered as being the result of cerebellar atrophy. It appears that this atrophy is a clinical fact and has been fully demonstrated in cases with unilateral castration. Cases are reported in which unilateral ablation of the testicles on the right side, for instance, was followed by cerebellar atrophy on the opposite, or the left side. According to some authors, the cerebellum of unsexed males resembled in its form that of females. The effect of unsexing on the condition of

the vocal cords was particularly known to the ancients. Thus, male children with promising singing voices were generally unsexed for the purpose of preserving the soprano quality of their voices. It is well known, for instance, that soprano church singers of ancient days were unsexed men. Some of the leading *prime donne* were also unsexed men. In 1722, Carlo Farinelli, an unsexed boy, made his appearance as *prima donna* in the Teatro Alberti, in Rome.

The records of the sexual life of eunuchs leads to the supposition that the generic function depends both on a cerebellar centre and the condition of the sexual organs.

This monograph has 99 pages, the reading of which is most instructive.

LA NEVRASTENIA. DR. LUIGI CAPPELLETTI, *Vice-Direttore del Manicomio Provinciale di Ferrara*. With an introduction by Prof. Clodomiro Bonfigli, *Direttore del Manicomio di Roma*. Ulrico Hoepli, Milano, 1904. The chapter on the history of neurasthenia reveals the fact that the disease was known to the ancients. Within our own times, however, our distinguished American physician, Beard, was the first to bring to light the major characteristics of the disease. Although many other physicians of his day published exhaustive treatises on neurasthenia, Beard's work on this disease remains the "bible" on neurasthenia, as Mathieu expresses himself.

The author handles the subject of his work in a praiseworthy manner. Indeed, the disease is considered in all its phases, varieties and conditions, leaving nothing to be desired, in so far as the description of neurasthenia is concerned: in its relation to etiology, course, duration, prognosis and treatment. Yet, on reading this instructive volume of 490 pages, the followers of Magnan's school will probably find that the author has "sinned" not by "omission," but by too much "commission." To be more explicit, the author has brought under the heading of neurasthenia a large variety of affections that, according to Magnan's school, belong to a well defined psychiatric group. Well defined morbid obsessions and impulses of a suicidal, homicidal or other variety, for instance, are classed by the author as cases of neurasthenia. Although many clinicians admit that neurasthenia may coexist with psychiatric invalidity, they do not claim that there is an identity between neurasthenia and psychiatric diseases properly speaking.

The reader of this notice should not be misled by this criticism: The work presented by Dr. Cappelletti is one of the most valuable publications on neurasthenia to-day. The author has simply sinned

by giving us a little too many affections under the heading of neurasthenia, as applied to a specific point of view.

The price of this valuable treatise is 4 lire.

AROMATICI E NERVINI NELL' ALIMENTAZIONE (I CONDIMENTI: L'ALCOL, VINO, BIRRA, LIQUORI, ROSOLII, ECC. IL CAFFE, IL THE, GUARANA, LA NOCE DI KOLA, ECC.). SULL'USO DEL TABACCO, DA FUMO E DA FIUTO. DR. ADRIANO VALENTI. Ulrico Hoepli, Milano, 1904. This volume of 338 pages is devoted to the study of the physiological action of various condiments and alcoholic beverages in man. The substances considered are the various spices used in our foods, alcohol in its various forms, tea, coffee, cocoa, etc. The pathological effects of the substances in question are also presented. The volume is well written and presents much interest to the physician engaged in general as well as in special practice.

The neatness of the appearance of this volume is characteristic of the Hoepli editions.

UEBER DEN PHYSIOLOGISCHEN SCHWACHSINN DES WEIBES. DR. CARL MOEBIUS. Carl Marhold, Halle a. S., 1903. The author claims that women are inferior to men and that their mental weakness is due to physiological causes. The work is intended for popular reading and is treated accordingly. The author tries to convey the idea that education produces a peculiar cerebral change in woman, unfitting her for motherhood. No clinical proofs are given to support this view. This monograph has 123 pages, of which forty-one are taken up with various criticisms of the author's view on the subject matter.

It is hard to state which part of the pamphlet is more humorous: —the subject-matter or the reviews.

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A CASE OF TOXIC POLYNEURITIS PROBABLY DUE TO ANILINE POISONING.

BY DRS. EUGENE MEDEA AND E. GEMELLI,
Milan Polyclinic, Neurological Department.

The case we are about to describe is one of toxic neuritis, probably due to aniline poisoning. We studied the case in Dr. Ripemonti's service: The histological examination of the nervous system was made in the laboratory of Professor Golgi, of Pavia. Considering the fact that aniline poisoning is not a common cause of polyneuritis, we shall enter into some details of the histological examination of the nervous system of our case.

R. A., fifteen years of age, was born in Milan. He entered Dr. Ripemonti's service October 2, 1902. He had never had any diseases of importance. The present affection dated since about one month. The patient complained of general malaise, loss of appetite and weakness in the lower limbs. He then had a spell of nausea and vomiting that lasted four days. During this spell he did not seem to have any fever. According to his parents, fever set in about three days before he was taken to the hospital. The fever was accompanied by pains all over the body. In the lower limbs the pains were particularly marked.

Leaving out details, the history of the patient, as found on examination, was about as follows: The temperature was 39.3 degrees C. The tongue was coated. There was nasal herpes, slight tumefaction of the anterior cervical ganglia and impaired hearing. The impairment of hearing was more marked during the last three

days of the illness. Nothing unusual was noticed on examining the heart. The pulse was 80 per minute. The lungs seemed to be in good condition, except for some slight impairment of the percussion note of the left lower lobe. The respiratory sound also seemed impaired in this locality. The spleen seemed slightly enlarged. The urinalysis was negative. There was marked weakness of the upper and lower limbs. It was difficult for the patient to close his hand, lift up his arms or legs and it was impossible for him to move his toes. There was paresthesia of the hands and feet, but no spontaneous pain. The calves of the legs were sensitive to the touch and forced extension of the legs also caused pain in the same locality. The sphincters were in normal condition. The patellar and plantar reflexes were almost abolished. An examination made October 15, 1902, gave about the following results: Marked diffuse muscular atrophy of the upper and lower limbs, especially of the hands and feet. Tactile anesthesia of the palms of the hands and posterior surfaces of the legs. Hypoesthesia of the arms, forearms, dorsal surfaces of the hands, upper surfaces of the feet and anterior surfaces of the legs. Electric irritability was abolished in the palms of the hands and in the calves of the legs. It was impossible to study the stereognostic sense. Reaction of degeneration was present especially in the upper and lower limbs. The patient had fever during the first two days of his sojourn in the hospital, but after that time there was no fever. He suffered from profuse diarrhea and loss of appetite. October 20, he indulged in a copious meal. This was followed by alarming diarrhea, vomiting, hiccough and abdominal meteorism. This condition increased in gravity towards evening, and the patient died during the night.

AUTOPSY.—The brain was considerably anemic, especially in the region of the basal ganglia. The spinal cord seemed to be of normal aspect, excepting for some impaired resistance of some of its tissue as compared with that of the posterior and lateral columns. The thorax: there was a diffuse catarrhal condition of the bronchi, numerous old bands of adhesion in the left pleuritic cavity. These adhesions were of old standing. The heart was flabby, but the pericardium and endocardium were in normal condition. The liver was the seat of interstitial fatty degeneration. The spleen presented marked perisplenitis. The stomach showed acute gastritis to a marked extent. The intestines were the seat of diffuse enteritis. The kidneys showed acute diffuse nephritis.

The histological examination of the nervous system gave the results related below.

THE PERIPHERAL NERVES.—The following nerves were examined: The ulnar, radial, the anterior and posterior tibial. All were treated with the Golgi solution, one per cent, solution of osmic acid, Marchi's solution and Flemming's solution. The specimens treated with the Golgi solution gave the most satisfactory results. The individual fibres showed marked alterations, being either swollen or else wasted to a thread. The myeline substance was altered, appearing in irregular masses, in globules or in the form of granulations. Carmine preparations of the axis-cylinder showed the latter to be irregular in shape. While this irregularity was an artifact in some instances, it was of pathological significance in others. While the axis-cylinder was quite normal here and there, it was completely absent in some fibres.

The microscopic examination revealed many alterations of the nervous tissues. The vascular walls were considerably thickened and the nervous fibres showed marked degenerative signs. In some places large nuclei were found in the sheath of Schwann, indicating that a process of regeneration must have taken place to some extent.

THE SPINAL HORNS.—The spinal horns were examined by the Marchi's method. The alterations found were particularly marked in the spinal and lumbar enlargements. The posterior horns were more altered than were the anterior ones. The examination of the spinal ganglia showed no positive results.

THE MUSCLES.—Transverse and longitudinal sections were made of various muscles, including the anterior tibial, those of the thenar and hypothenar group, etc. The muscular fibres seemed to be in normal condition and there was no proliferation in the interstitial connective tissue. This latter fact may be of some significance. It is admitted that in experimental neuritis the interstitial connective tissue is intact, while this tissue is considerably augmented in ordinary neuritis particularly of chronic nature.

THE SPINAL CORD.—The spinal cord was treated by the Marchi method. The column of Goll was altered on both sides. The anterior and posterior horns were altered, but the alteration was more marked in the posterior horn. In the dorsal region the alteration of the horns was rather slight. The zone of Lissauer was almost intact. The posterior columns, on the contrary, were markedly altered. This alteration extended anteriorly to the cornu-commissural zone, while the cornu-radicular zone was very slightly involved. The columns of Clarke were in this region normal on both sides.

In the lumbar region were noticed marked lesions of the roots, particularly in the posterior roots. The posterior columns were involved to a large extent. The cornu-commissural zone was only slightly involved. The lowest portion of the lumbar region, or the oval field of Flechsig, was the least affected part.

In the sacral region the nerve roots and posterior columns were affected. The triangle of Gombault and Philippe was almost intact.

The examination of the cellular structure of the spinal cord was not satisfactory. The few cellular changes that were observed were not characteristic; such changes may be due to almost any disease or to post mortem alterations.

This case is of interest from more than one point of view. Firstly, it is rather rarely that autopsies can be performed on cases of polyneuritis during the acute stage of the disease. Secondly, toxic neuritis due, in all probability, to aniline poisoning is also rare. There are only a few similar cases reported in literature. J. Ross reported a case of a man who had polyneuritis in consequence of aniline poisoning. This man, however, had had diphtheria three months previous to the attack of polyneuritis. Soupault and François (*Société des Hopitaux*, 1901) reported two cases of polyneuritis in the lower extremities in women who had been employed in a dye factory. Dufour (*Gazette des Hopitaux*, 1901) reported one case of polyneuritis due to benzine poisoning. Friedländer (*Neurologisches Centralblatt*, No. 4, 1900) published a most interesting case of acute psychosis due to aniline poisoning. Brouardel (*Archives de Médecine*, déc., 1901) and Brouardel and Landouzy have published interesting papers on aniline poisoning. Several other articles have been published on the same subject.

Our patient worked in a dyeing establishment. The factory was damp and the air was laden with vapor from the steaming tanks in which the stuffs were dyed. The father of the child, who works in the same factory, says that our patient often went home without washing his hands and his clothes were also soiled with the dyes. The father is also subject to spells of gastro-intestinal disturbances and for some time past has been subject to weakness in the lower limbs. For this weakness he has been undergoing electric treatment. Two other employes of the same factory have had, at different times, attacks of weakness in the lower limbs.

Although the history of our patient's illness points towards aniline poisoning, we do not affirm positively that such is the actual case. We did not make any chemical analysis of the coloring matter and there is a possibility of there having been poisoning of various other natures, such as lead, mercury and arsenic poisoning, all

of which have a special predilection for the peripheral nerves. Auto-intoxication due to intestinal troubles may also be considered as a possible cause. The febrile condition before the patient was admitted to the hospital may have been due to this cause. We reserve our positive diagnosis of aniline poisoning for some future time, when we hope to have more definite data from experimental studies on the subject.

We wish to make some remarks regarding the relation of the peripheral to the central lesions found in our case. Many authors believe that the central lesions are the first to appear in cases of polyneuritis. In our case the gravest lesions were found in the peripheral nerves and the central lesions seemed to be quite secondary in development. We do not think that the peripheral and central lesions developed synchronously. The marked lesions of the posterior columns do not change our point of view. The exogenous fibers (of radicular origin) presented far greater lesions than did the endogenous fibers (as seen from the comparative integrity of the triangle of Gombault and Philippe, of the cornu-commissural zone, of the oval field of Flechsig and in the limitation of lesions of the columns of Goll to the cervical section). For these reasons we feel that we are justified in thinking that the degenerative process involved primarily the peripheral nerves, particularly those destined for the upper and lower extremities.

ON THE EXTERNAL APPEARANCE OF THE NERVOUS ELEMENTS OF THE CEREBEL- LAR CORTEX OF YOUNG MAMMALIA.

By DR. M. J. GOUREVITCH,

Moscow Psychiatric Clinic.

The study of the cerebellar cortex of the higher vertebrate shows that the shape of the Purkinje cells differs with the degree of development of the animal. The complexity of their dendritic ramification and the abundance of their lateral stems is in direct proportion to the degree of development of the species (1, 2, 3). The present study deals especially with the variation of form of the nervous elements in question at different periods of development of the animal.

Up to the present time, researches into the structure of nervous elements have been almost entirely confined to the embryological changes. The study of the various cellular forms of the nervous system at different stages of development after birth, however, may be said to be of most recent date. Besides, this study has been almost entirely limited to the cells of the cerebrum. Thus, Stefanovska (4) has published studies of the cerebral cells of new-born mice; Soukhanoff (5, 6) has published similar studies in children, rabbits and crows; and finally, Geier (7) has published similar studies of spinal cells. There have been no special studies published of the cerebellar cells, however, so far as I know.

In my studies of the cerebellar cellular forms, I used the Golgi-Ramon-y-Cajal method. The subjects for these studies were as follows: Two children, about one month old, young rabbits and kittens, ranging in ages between 3, 6, 10, 14 and 20 days and one month, six weeks and two months; finally, a young calf completed the list of the subjects.

I wish to remark that in very young subjects I had considerable difficulty in applying the Golgi-Ramon-y-Cajal method. The same method gave perfect results in adult subjects, but in the young the process of impregnation with the stains was uncertain. Miss. Stefanovska complains of having had similar difficulties in her work on brains of young mice. According to her, satisfactory results could be obtained only after the ninth day after birth.

I shall omit various details connected with the technique of my research and shall limit my remarks to general statements relating to the study of the nervous elements in young animals. I shall first speak of the Purkinje cells.

The Purkinje cells of the cerebellum differ in shape according to the age of the animal. This difference is apparent at a glance. In the younger animals the dendrites of these cells are very little developed, short, and the entire net of ramification is remarkable by its poverty of branching as compared with the dendritic ramification of cells in older animals. The size of these cells in the younger animals, on the contrary, is much larger than is that of the older ones. It may be said that the richer the dendritic ramification, the smaller is the cell from which it springs.

The appearance of the Purkinje cell in the younger animals seems rather unusual—to one accustomed to the shape of the cell in older animals. In the young, the main branch—intermediary between the cell and the final dendrites—is most simple in shape and the final dendrites are also simple. The ramification of the main stem begins quite near the body of the cells. The best part of these ramifications is smooth and the terminal dendrites are characterized by simple, short, rod-like, perpendicular branches. In the older animals, on the contrary, the intermediary branches are far more complex, and this complexity is proportionate to the degree of development of the Purkinje cell.

The smooth dendrites are never bare at their terminal ends. The latter are always covered with short, rod-shaped branches. This configuration of the terminal dendritic ramification is characteristic even of the nervous elements of older animals. The terminal branches are covered in their entire length with stereotyped perpendicular rods, all of which are of uniform thickness as well as length. In the younger animals the length of these rods may vary now and then, but in the adult animal the uniformity is quite constant. Generally speaking, the thickness of these dendrites is quite marked, but their length is comparatively less in young subjects. They are also straight in direction, never tortuous.

tive material for the growing dendrites, disappearing with the growth of the latter.

Personally, I agree that not all of the offshoots become dendrites. For, if they were all transformed into dendrites, the cells of the adult animal would present far more numerous dendrites than does the cell of the young animal. In reality, this is not the case. Without making any positive statements about the function of these offshoots, I am inclined to believe that they contribute to the growth of the nervous cell.

From what has been said above, it seems that the basket-shaped and the Golgi cells as well as the spinal cells of the anterior horns in young animals are developed less than in the adult animal. The offshoots and sometimes the rod-like terminal branches, on the contrary, are more marked in the cells of the young animal than in that of the adult subject. It follows, therefore, that these cells are of a higher type in the young animal, and become more and more simple with the growth of the latter. In this respect the development of these cells is perfected in a manner opposite to that of which the Purkinje cells develop. Indeed, the form of the Purkinje cells of the cerebellum becomes more and more complex with the growth of the animal. The same is true of the pyramidal cells of the cerebrum. Stefanovska, Soukhanoff and Bechtereff, have published interesting accounts of the growth of the cerebral cells.

What could explain the apparently contradictory facts here presented?

It is generally admitted that the complexity of cellular configuration is in direct proportion to the importance of its function. The cells, for instance, destined to produce a large amount of nervous energy, are most complex in form. The pyramidal cells of the cerebrum and the Purkinje cells of the cerebellum are types of such cells. These cells reach the highest development in adult animals and in the highest type of animals.

Following this line of study, one can understand the reason of the complex configuration of the basket-shaped cells, and the cells of Golgi in the cerebellum as well as of the spinal cells in the anterior horns in young animals; in the latter animals these cells have a more important individual functional activity than they have in the adult animal.

Although the above supposition cannot be positively demonstrated in regard to the basket-shaped and Golgi cells, it is quite applicable to the spinal cells of the anterior horns. Indeed, the function of the latter cells is far more important and independent in the young—when the spinal cord is far less subject to control

of the brain than it is in the adult animal. It is well known that not all nervous cells become perfected with the growth of the animal. While some cells retain their autonomy, others, on the contrary, lose their individuality and fall under the control of the higher nervous centers. Such is the fate not only of certain groups of cells but also of entire organs during the course of their phylogenetic and ontogenetic development.

As regards the cerebellar cortex, the basket-shaped and Golgi cells possess a certain independence while the animal is young and lose it with the growth of the animal. The Purkinje cells, on the contrary, attain the highest degree of individual function and importance during adult life of the animal. In this respect, the opinions of Lenhossek (8) and Lugaro (9) regarding the dendrites and of Soukhanoff (10) regarding the perpendicular rod-like additions are quite correct. It is to be remembered that according to these authors, the above mentioned formations serve not only the purposes of cellular contact but also produce nervous energy. The amount of the nervous energy produced increases with the complexity of the formations in question. This explains the marked sensitiveness of the entire cellular structure, when its function is of a high order and its indifference to dynamic changes when the contrary is the case (Van Gehuchten, (11) and Cajal).

To summarize what I have said in regard to the cellular formations, I wish to repeat that the Purkinje cells of the cerebellum attain the highest form of development in the highest adult animal, notably in man. The basket-shaped and Golgi cells, on the contrary, the functions of which decrease with the growth of the animal, have a far more complex formation in the young than in the adult animal. The autonomy of the Purkinje cells of the cerebellum increases with the growth of the animal, while that of the Golgi and basket-shaped cells, as well as that of the spinal cells of the anterior horns, decreases with the growth of the animal.

Careful study of cellular morphology of the nervous system is bound to lead to some important results. Every cellular type has its own significance and probably has some specific meaning as applied to nervous activity.

In conclusion, I wish to thank Dr. Serge Soukhanoff for his generous advice that proved most helpful to me in the preparation of this work.

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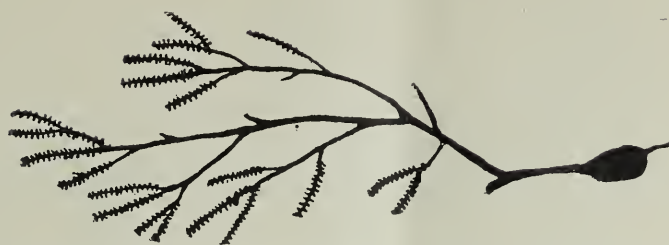


FIG. 3. Schema of dentritic ramification. Purkinje cell of adult rabbit.



FIG. 2. Cerebellar basket shaped cell of adult rabbit.



FIG. 1. Cerebellar basket shaped cell of rabbit two weeks old.

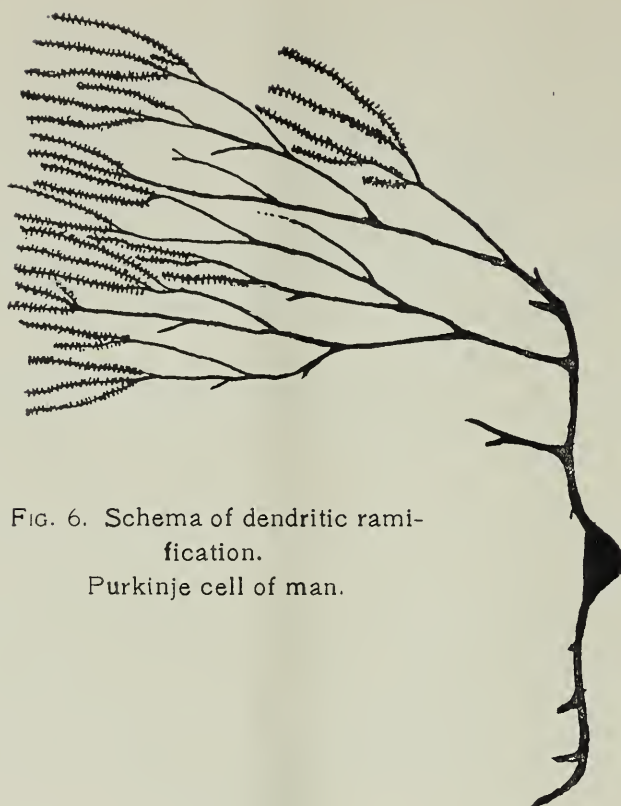


FIG. 6. Schema of dendritic ramification.
Purkinje cell of man.



FIG. 5. Dendrites in a plane parallel to the convolutions. Short rods.



FIG. 5. Schema of dendritic ramification. Purkinje cell of one month's old child.



FIG. 4. Schema of dendritic ramification. Purkinje cell of bird.

CONTRIBUTION TO THE STUDY OF MENTAL IMPULSES.

By N. VASCHIDE, and P. MEUNIER,

*Chef du Laboratoire, School
of Higher Studies.*

*Late Interne, Asylums of
the Seine.*

A Case of Ophthalmic Migraine with Scintillating Scotoma and Numerous Morbid Flights.

Mental impulses are most difficult of analysis and the most rational way of studying them is by clinical observation. We shall, therefore, cite a case illustrative of the subject in question and make some superficial remarks about the working of mental impulses in certain cases.

The patient, whose history is here cited, began to manifest psychopathic traits when he was a child, but his own attention was drawn to his condition when he was thirty-eight years of age. According to his statement, he was 38 years old when he first had an attack of ophthalmic migraine, scotoma and morbid perambulation accompanied by illusions and hallucinations. He lived with his family until he was fourteen years of age. During that period he showed an excessive nervous sensibility. His mind was pre-occupied with religious formalities. In his childish plays he took pleasure in acting the part of a priest and he often went out of his way to enter some church and fervently assist at religious services. His sleep was restless, his dreams were mostly confined to religious ideas and he often woke up with cramps in his legs. When seven years old, he had some acute affection and was ill with it some two months. During that time he suffered from terrifying hallucinations. At ten years of age he was placed as service boy and remained with his employer seven years. While in this employ, at fifteen years of age, he had a series of attacks of somnambulism. The patient himself could give no account of the attacks in question, but a careful investigation of the incidents related below revealed the true nature of these attacks. The patient tells that every morning, during a period of three weeks, he found a bouquet

of flowers on his bed. He thought that the apparently mysterious daily floral offering was made by some friend disposed to play a joke on him. One of the members of the household explained, however, that the patient frequently walked off into the fields in a somnambulistic condition and returned home with flowers in his hands. These flowers he placed upon his bed, went to sleep and, when waking up in the morning, ascribed their presence to some playful joke on the part of his friends. The woman, who had followed him while he was tramping in a somnambulistic condition, relates that the patient entered into various open buildings, tramped through some ruins and finally returned home and went to bed. When he woke up, he said that he had dreamt of visiting buildings and ruins.

When 24 years of age, he became subject to nightmares. At times, however, these dreams were not altogether terrifying in nature, but rather expressive of ideas of grandeur. He suddenly jumped out of bed, for instance, shouting that magnificent pictures were hung all along the walls of his room. As soon as he woke up, he realized that the walls of his room were quite bare. When twenty-seven years of age, he had an attack of agoraphobia that lasted three years. He then left France for Egypt and married when he was thirty-seven years old. He was employed as valet when the nervous trouble that had alarmed him developed in consequence of overwork.

The patient says that the nervous disturbance was preceded by a persistent headache. The day of the attack he was compelled to give up work on account of these headaches and to lie down for a couple of hours. He finally decided to go home for the day and left his employer's house with the avowed purpose of reaching home. While walking towards his residence, he had a queer visual impression as if a circle of red light blinded his left eye. In his own words he had an *attack of the red circle*. Beginning with the time of this attack, his mind was no longer occupied with the thought of reaching home. On the contrary, he passed his house without giving it any thought and kept on walking aimlessly. The red circle kept on obscuring his vision during a period of one half hour—approaching the left eye nearer and nearer from the great distance at which he had first noticed it, until finally it came in contact with the surface of the eye. According to the patient, this red circle seemed to him like some real object, like a light of fireworks.

This scotoma affected the left eye only. When the patient felt that the light had come in contact with the eye, his headache assumed the form of hemicrania. During the entire period of invasion of the scotoma, he was under the influence of a visual hallu-

cination. The affected eye was totally blind, and he could see outlines of things only through the chromatic edging of the scotoma.

The patient remembers that when his left eye was thus blinded, he was on his way to Saint-Denis—a road leading away from his home and into Paris. During this aimless pilgrimage he imagined seeing a most gorgeous pageant of hunters, and the predominant coloring of the entire scene was red. He heard galloping of horses, barking of dogs and voices of people. On his left he heard sounds of a bugle. He was frightened, although he could not explain to himself any reason for being so. The scene did not seem unusual to him, as he had often accompanied his master on hunting trips. He thinks that the hunting procession lasted about fifteen minutes. He tried to flee from the hunters, he says, but did not succeed in getting away from them—although they did not seem to take any notice of him. Later on, however, the people assumed a different outward aspect, jeered at him and called him insulting names, and even beat him until he became exhausted. He kept on walking with the intention of getting away from the intolerable scene. He had ringing in the ears, a burning sensation in his feet, that he compares to scorching of the flesh with electricity, and an irresistible impulse prompted him onward in his tramping fit. He finally arrived at Vitry. Here he noticed a light that was steadily approaching towards him, and he promptly concluded that the approaching light was death. Resigned to meet his fate without resistance, he quickly undressed himself, pulled out three thousand francs from his pocket, threw them on the road and prostrated himself, completely nude, in the middle of the road. He remembers distinctly all these details and correctly recounts that some people, seeing him in danger of being run over by a horse, picked him up and carried him into an inn. He does not remember distinctly the incidents that followed after he had been taken into the inn. He was violent and it was necessary to tie his hands and feet to the bed. He was placed in the Meaux Hospital, where he remained six weeks, oblivious of his surroundings. He suffered from various terrifying visions, imagined that he was a child and went through various reminiscent scenes. At the end of that time he suddenly woke up and was most astonished to find himself in bed in a hospital. His consciousness was now perfectly clear, and he left the institution. He was in good condition, but spent a month in the country before resuming work. He suffered from occasional headaches, but paid no attention to them.

During the three years that followed (1882-1885), he was employed as valet. He was in good condition, but suffered from

bilateral headaches and sexual hyperesthesia. At night he was also troubled with fantastic dreams. April, 1885, the patient was visiting a friend with his wife, and suddenly, without any warning, felt impelled to leave for New York. It was four o'clock in the afternoon, and he started off to tramp. First he went to Marseilles—saying that he was bound for Egypt. He was markedly nervous and on reaching Marseilles took six grams of opium to calm himself. He then retraced his steps, came back to Paris, went up to Hâvre and from there sailed for New York. According to his statement, he was unconscious of these incidents until a month had elapsed. He then remembered that he had been under the influence of an irresistible impulse to sail for New York. He says that at the time, he tried his very best to resist the unreasonable impulse, but all his efforts were in vain. The more he resisted, the more he suffered from a peculiar headache that gave him a sensation of a helmet pressing around his head and the epigastric region was the seat of a sensation of unbearable constriction. He felt as if he were under the influence of a frightful nightmare and yielded to his impulse. He left for New York and sailed on for three days. It was three o'clock in the afternoon when he suddenly regained normal consciousness and, realizing what he had done, fearing his wife would not forgive him, made a desperate attempt to jump overboard. People who happened to be near him, caught him by his clothes and dragged him back. He was kept in a cabin under lock until the end of the journey and was sent to an asylum in New York, where he remained six months. He was melancholy and fretted over what he had done. Finally he was discharged from the asylum and he returned to Paris. He resumed his position at Chantilly. His condition was good, but he suffered from bilateral headaches.

November, 1887, at ten o'clock at night, he was in the house of a friend, rue Bassano. He was about to leave, when he felt impelled to carry off a boa belonging to his friend. It so happened that the value of the boa was two thousand francs, but the patient took away the fur without regard to its value. He left, presumably with the intention of going home, but he could not be found for three days after the incident. He had tramped about various parts of the city, but he cannot remember distinctly where he had been. He remembers, however, having spent a night in rue des Emies d'Artois. He had the boa in bed with him that night. A woman asked him to give her the boa, but he refused her request because, he said to her, it was not his property. He says that during that spell he felt dazed and as if in a nightmare. From what he tells, it does not seem that he had had any hallucinations. He

simply felt impelled by a blind force to tramp. Later investigation revealed the fact that he had slept twenty-four hours in a hotel, rue des Champs Elysées. At the end of the third day he suddenly awoke at five o'clock in the morning, while tramping on Place de la Nation. He felt chilled now, although he did not feel the cold during the entire three days. He summarizes his condition during those three days by saying: "I did not exist."

As soon as he woke up, he jumped into a cab and returned to his home. There he immediately went to bed and slept twenty-four hours at a stretch. In his pocket was found a written address of a hotel, where the boa was subsequently found.

He resumed his work and nothing unusual occurred during 1887-1893. He attended to his work conscientiously, so that his friends joked about him and said he was so conscientious that he must have some hidden vices.

In 1893, he was working for a certain D. The patient overworked while helping his master prepare for some family holiday. On the eve of the family reunion the patient was under the spell of an impulse to "go off somewhere." He went on attending to his work, however. While the last details of the preparation for the evening were being attended to, the patient was sent to a silversmith to have a valuable coffee pot repaired. He went to the shop, had the coffee pot repaired and took it with him. Instead of returning with it to his master's house, however, he jumped into a cab and went off, not knowing where himself. It was learned in the course of time that the patient had gone to some hotel, where he slept for some forty-eight hours. The coffee pot was ultimately found in that hotel. The patient wandered about from Tuesday until Sunday, but he does not remember very much about this flight. All he remembers is that he was unusually thirsty during the whole spell. It was two o'clock in the afternoon, Sunday, May 20, 1893, when he suddenly woke up from his spell. He felt chilled, his teeth were chattering and he was unusually sleepy. He hastened, however, back to his employer's house. His employer immediately demanded that his coffee pot be returned to him. As the patient claimed to be innocent of any guilt, his master lodged a complaint against him for theft and had him arrested. The employer demanded six hundred francs for his coffee pot. The patient was considerably impressed by this demand and in consequence suffered terrifying nightmares, seeing himself in the hands of the police, etc. He says that a few days preceding the onset of his flight he had indulged in coffee with rum, but did not get intoxicated.

He was kept at the Infirmerie du Depot about a month and was

then transferred to the Ste.-Anne Asylum. He had spent there five weeks when he had for the first time a series of epileptoid attacks. An aura of ten minutes' duration preceded the attacks. The aura consisted of tingling in the soles of the feet and later in the calves of the legs. Then followed a series of clonic convulsions on the right side only. The convulsions began in the foot, extended to the leg, abdomen, thorax and finally ended in the head. The attack lasted twenty minutes. After the attack the patient felt unusually sleepy and had a sensation of thumping in the right side of the head. These attacks were repeated three times every week, but disappeared under the influence of bromide treatment. The disappearance of the attacks was followed by sciatica on the right side. This affection lasted three months.

The patient could not recall where he had left the coffee pot. An attendant, however, whom he had told as much as he could remember about the last tramping spell, took the patient out for a walk in the city to trace the places he had visited during the spell. The patient thus succeeded in tracing the hotel where the coffee pot had been left by him.

The patient voluntarily remained at the Ste.-Anne Asylum. During 1894-1898, he worked in the Bicêtre Asylum. In 1896, the scotoma reappeared and persisted for about twenty-five minutes. This was followed by hemicrania that lasted two hours. He then had a sleeping spell. The scotoma reappeared every month at the same hour, at one o'clock P. M., and on the same day, up to 1901. The appearance of the scotoma was regularly preceded by tingling in the left side of the head. The convulsive attacks that had disappeared seem to be substituted by other disturbances of the right side of the body. Thus, the patient suffers three times a week from a tingling sensation that commences in the foot and ends in the head. This spell is followed by buzzing in the head, ringing in the ears and flashes before the eyes. He retains consciousness during these spells.

He left the asylum in 1898 and tried to obtain a place. This he could not accomplish because of his suffering from headaches. He then made the rounds of the principal neurological services in and around Paris. He remained three months at the Beaujon Hospital in the Debove's service; at the Vincennes Asylum three months; at the Ste.-Anne Asylum, one year (1899); at Bicêtre he remained during May, June, July and August, 1900; in Dr. Ballet's service his affection was diagnosed as hysterical perambulation. He then consulted many other neurologists.

The patient is easily hypnotized, but does not derive any benefit from hypnotic suggestion. He is now fifty-four years of age and

weighs 144 French pounds. He never sleeps more than five hours out of twenty-four and always has terrifying nightmares, from which he generally wakes up trembling with fright and in profuse perspiration. He has a slight tremor of the tongue, but there is no trembling of the fingers. General sensibility is impaired on the right side in the lower half of the body. The sense of pain is markedly decreased there. The sense of smell is somewhat more marked on the left than on the right side. The gustatory sense is in good condition on both sides. The sense of hearing is quite dull on both sides, but is duller on the left side. The visual field is normal on both sides. The pupils are rather contracted and the left is larger than the right one. Pupillary reaction to light is good, but it is imperfect in response to accommodation. An ophthalmoscopic examination gave negative results. The tendon reflexes are exaggerated on the right side and considerably impaired on the left side. Romberg's sign is marked, although the muscular sense is normal.

The detailed description of the "red circle" is given by the patient as follows:

It appears in the shape of an ellipse, its larger axis being placed horizontally. The figure is made up of luminous red fangs that radiate from its centre. The central part of the figure is marked by a plain disk of red, on the surface of which are placed green fangs radiating, like the red fangs, towards the periphery. The peripheral limit of the green fangs is marked by a thin black circle. The latter is, in its turn, marked by sky-blue fangs. Around this circle is one of red fangs and, finally, there is another circle of larger fangs of violet color. The figure does not appear in its entity all at once. At first appears its central part, then the whole figure grows rapidly into a whole, as described. The different colors make their appearance about as follows: During the first ten seconds, red; during the few seconds that follow, green; then black appears abruptly; blue makes its appearance during the following thirty seconds; red appears during the thirty seconds that follow and, finally, violet makes its appearance. The total duration of this luminous vision is about one half hour. During the first twenty minutes the patient can see objects through the luminous figure, but it is opaque during the last ten minutes.

The patient does not suffer from dyschromatopsia.

We shall make only a few clinical remarks about this case and reserve a detailed analysis of it for a future occasion.

The spells of morbid perambulation seem to set in with hallucinatory phenomena. Morbid flight in question is generally considered as being due to subconscious action; this is characterized

by intense motor automatism that may be accompanied by secondary mental pre-occupations. In the case above cited, however, the patient is conscious of his mental disturbances. A complex mental analysis precedes his morbid perambulation. This mental analysis is not sufficiently lucid, however, and consequently the patient cannot relate the gradual steps between the onset of the mental trouble and the morbid perambulation. It seems clear, nevertheless, that at first the mental disturbance is ushered in by obsessions. The obsessions are later transformed into hallucinations that always obscure the patient's intellect. The "red circle" is due to the phosphenes and the other visual excitations caused by ocular pressure common in migraine. This pressure of the eye balls caused by the migraine, systematically brought into play the phosphenes and alarmed the patient. He was thrown into a condition of mental disquietude. The patient was now on his defensive, trying to ward off an unwelcome condition. As he failed in his attempt, however, he was soon dominated by hallucinations that were rapidly followed by the automatic acts.

Indeed, there seems to exist an intimate relation between the automatic acts on the one hand and the defensive reaction and the obsessional hallucinations on the other hand. The phenomena of automatic perambulation seem to take place in subjects with hyperesthetic mental vision, such as is seen in the above cited case. The history of this case shows that the patient was readily thrown into a condition of mental anxiety. If he found himself in the dark, for instance, his mental anxiety immediately reached a maximum degree; he imagined himself in the midst of most terrifying scenes, etc. During his spells, his fright was of a more permanent and even obsessional nature. Hallucinations readily followed and obscured the patient's intellect.

Mental analysis plays an important rôle in the genesis of the psychiatric phenomenon under consideration. We have had occasion elsewhere to consider in detail the rôle of mental analysis in psychopathic disturbances (Vaschide and Vurpas). The history of this case is an additional confirmatory proof of the correctness of our views regarding this subject. Consciousness plays a capital rôle in the morbid mental constructions under consideration. Thus, certain hallucinations bring about intense mental analysis of the sufferer. While trying to defend himself against his obsessional hallucination, the patient becomes more and more dominated by the latter. Alarmed at this condition, he turns to the last resort within his power, a motor crisis. This crisis may assume various forms. In the case above cited it was expressed by perambulation.

As regards the scotoma, it seems to be a psychological construction on the part of the patient. The distinctness of its configuration and coloring seems to be unusually precise. So far as we know, there are very few cases of such a nature reported in literature. The patient has a vivid impression of this vision and has enabled us to reproduce it in colors exactly as he has seen it on various occasions.

To conclude, we wish to say that the above cited case seems to prove that obsessional hallucinations and automatic acts have their origin in mental analysis. It has always been claimed that obsessions and automatism were due to emotional reactions. In our case it is seen, however, that the automatism is brought about in a particular manner. There is a defensive reaction against systematized obsessions. The nature of the reaction, however, is of great interest. The reaction is the consequence of mental analysis.

REMARKS ON A CASE OF PRECOCIOUS ATTENTION TO ESTHETIC SENSATIONS.

By DR. RAYMOND MEUNIER.

Psychologists agree that the faculty of attention is rudimentary during infancy. It is well known that it is difficult to attract and hold an infant's attention. I have had occasion, however, to observe highly developed attention to musical sensation in a very young child.

The subject in question is a boy, eleven months old. He is free from morbid heredity and is normally developed. His mother is healthy. His father, thirty years of age, has, within the last few years, been suffering from neurasthenia. He is a violinist. The child first showed signs of attention to musical sounds when he was five months old. Whenever his father played the violin, the infant followed him with his eyes. At times the child's attention was completely absorbed in listening to the sounds of the violin. This remarkable attention was seen not only from the infant's appearance, but also from the quickening of his pulse and respiration. At this early age the child seemed to appreciate that the musical sounds came from the violin and he became overjoyed whenever his father came into the room carrying the instrument in his hands. This precocious development of attention to musical sounds became more and more marked as the infant grew older and now—at the age of nine months—the manifestation of attention to musical sounds seems to be quite unusual. I at first thought that the child's affection for his father had something to do with this manifestation of attention. I, therefore, asked a young lady to play before the infant, and the results were quite astonishing. The child's attention was promptly attracted and held by the musical strains. This experiment was repeated several times and gave positive results in each instance. I also tried the effects of sounds from a music box on the attention of this child. The child listened quite as attentively to these sounds as it did to those caused by the playing on the violin. Thus, it seems that attention in this case is of esthetic origin. The other senses of the child are normally developed.

The precocious development of musical appreciation in this child seems to be due to hereditary influences. The father of the child manifested an extreme liking for music during early childhood and has since then been giving most of his time to the study of music.

SUICIDAL AND HOMICIDAL ACTS. THEIR CLINICAL ASPECTS AND MEDICO- LEGAL SIGNIFICANCE.

BY LOUISE G. ROBINOVITCH, B. ès L. (Paris), M. D.,

*Member New York Academy of Medicine, Foreign Associate Member
Medico-Psychological Society, Paris.*

(Continued.)

The histories of the two born criminals given above bring to light the potent fact that subjects of this class are morally invalid from the time of their early childhood. This point is masterfully demonstrated in Magnan's works quoted in these pages. Some criminologists believe that an abnormal physical condition of the nervous system underlies the morbid psyche of these criminals. Certain anatomical facts are adduced in support of this teaching. Other clinicians, on the contrary, oppose these views of anatomical degeneracy. All psychiatrists agree, however, that if the physical stigmata cannot be found in all cases of criminality, the early manifestation of the psychic stigmata is sufficient proof that the criminals in question are organically irresponsible. This mental invalidity is of importance from a medico-legal point of view. It teaches us that the proper place for these subjects is not the prison but a special reformatory institution.

ORGANIC PSYCHOSES.

Among the mental diseases of organic nature that are apt to come to the jurist's notice, progressive general paralysis presents the greatest interest. Patients afflicted with this disease are apt to commit suicide or homicide at any stage of the disease, and a proper understanding of its clinical picture may prove profitable. It is of the utmost importance to recognize this disease in its earlier stages, when mental alienation is not yet apparent. A careful study of cases of this disease shows that the intellect is the first to be affected and that a change of nature is the first result. Suicidal and homicidal acts in such cases should, therefore, be analyzed in the light of their clinical significance.

The case below cited is illustrative of the usual clinical characteristics of progressive general paralysis.

Case XVI.—*General Paralysis with an Alcoholic Onset.—Systematized Delusions of Grandeur and Persecution.—Hypochondriacal Ideas and Attempt at Suicide.—Auditory and Psychomotor Hallucinations.—Period of Intermision.—Neologisms.—Disturbances of the General Sensibility.—“The Unpardonable Sin.”**

J. Ch. R., 48 years of age, sculptor, entered the Admission Bureau, November 8, 1892. The history of his antecedents cannot be had. One of his brothers committed suicide by shooting.

The patient indulged daily in alcoholic beverages, but was never drunk. His personal history is unknown. The only information that can be gathered about him is that one year before he entered the asylum he presented a noticeable change of character. He was irritable and became violent on the slightest provocation. In June, 1892, it was noticed by his friends that his speech was thick. During the course of the month following he wasted considerably, losing 40 pounds in body weight. At that time his intellect was markedly enfeebled and his memory had become poor. Along with these developments he showed marked delusional ideas. He imagined that he was being persecuted, that people tried to poison him, that poisonous stuffs were put into his food, and that his life was in danger. For these reasons he changed from hotel to hotel at very frequent intervals. But in the midst of these delusional ideas he imagined himself to be a highly important political personage. When he was brought to the Salpêtrière and placed in Professor Charcot's wards, he attempted suicide because an intimate friend failed to visit him regularly several days in succession. He attempted to cut his throat with a pen knife, but only succeeded in inflicting upon himself a deep wound in the neck. He was then transferred to the Admission Bureau, at Ste-Anne, where he said that he must have been insane when he had attempted suicide.

At Ste-Anne it was noticed that his pupils were unequal, the left pupil being the larger, and the clipping of words was quite marked. The co-existence in this patient of delusions of grandeur and of persecution was quite distinct. His uncle would leave him three million francs, and he intended to dispose of the money by founding philanthropic institutions with it. “While I am talking to you about my plans I hear a voice tell me that some one will demolish all that belongs to me in order to punish me for projecting my plans,” he said. A woman with whom he had lived conjugally made him destroy all his documents in order to destroy his identity.

* Magnan. *Leçons cliniques sur les maladies mentales*, 1896.

She wished him to do this so as to assume his name herself and to give his uncle's fortune to her children. "They spoke" in his mouth, on his palate, as if some one tried to make his tongue move; this was done with an evil intent. His name was de R. . . . he said, but he did not care to have anybody know that he was a nobleman. "They want to do away with me and get hold of my money, yet I mean to distribute it properly myself," he said. He could not sleep nights because police officers, who were given one million francs for their services, came to the wards to tell him that he was a thief. He could hear their voices under the floor. Everyone wished to see him dead, he said, and this prompted him to attempt suicide. In January, 1893, he made an attempt to hang himself with shoe strings. He would have succeeded in this attempt had not an attendant arrived in time to cut the string. His delirium of persecution persisted. He imagined that he was a prisoner in the catacombs and that gnomes and devils were after him. He could hear them, although he could not see them. "These monsters are armed to the teeth and I am helpless beside them; when I hear them I feel as if I were deprived of my arms, legs and feet," he said. He was tormented because he did not know where "the treasure" was and also because he had committed the "unpardonable sin." On February 9, he became considerably excited during the night because he heard voices say that he was going to be killed. He insisted on putting his bed in front of the door so as to prevent the murderers from entering the ward. He heard them call him "Prussian," chloroform was used on him and immoral acts were being performed on his body. He was not allowed to leave the asylum because "they knew that he could make his money talk." He struck a patient because he "spoke to him through his feet" and was responsible for the voices that annoyed him.

In March, 1893, the patient became more quiet, even taciturn, and refused to speak at all. "No one bothers me now, I am contented and sleep well," he said. He retained only a vague recollection of his delirium of recent date and was considerably astonished when asked what had become of his wealthy uncle. He replied that he had never heard any one speak of such an uncle. At this period no trace remained of his delirium of grandeur. In April he had two epileptiform attacks and marked mental enfeeblement characterized his condition thereafter. He presented motor disturbances and marked impairment of speech; the latter was incomprehensible. On April 18, it was absolutely impossible to understand what he was saying; the words he pronounced sounded like an unintelligible noise. His condition gradually improved,

however, and in May, 1893, the patient showed some signs of recovery. His speech as well as his reasoning power were quite improved. He articulated words much better and on May 5, he did not present any clipping of words, grinding of the teeth, or hallucinations of any kind.

This period of intermission lasted only until May 25, when the patient showed signs of a return of the activity of his disease. On May 27, he again had hallucinations. He saw some women who were his enemies, and other imaginary personages also persecuted him. In June, 1893, he refused to eat because he imagined that sulphate of copper was mixed with his food, and the soup served him was mixed with kerosene oil. In July, he had a marked spell of excitement because women who were "up there" teased him and "gave him spasms" and diamond thieves tormented him. Obnoxious odors were sent him through the ceiling, and Henriette, who was "up there" sent these odors through a glass tube. In August, the patient was rather quiet and even stupid and then became incoherent; the speech became thick and he imagined that "perigoriphic" gases were being sent to him. He was chloroformed because his voice displeased Henriette. He insisted that three vertebræ had been taken out of his spine and that three of his teeth had been extracted against his wishes. He slept between two mattresses because he was annoyed by what he called, by a neologism,—*"boudruchonner."*

The delusional ideas left him gradually, but intellectually he became more and more enfeebled. In 1897 this change was quite marked. He was stupid, apathetic and indifferent. He was perfectly contented and his happiness would be complete, he said, if he had some cigarette paper. He had no melancholic ideas, he said; artists see too much beauty in surroundings to feel depressed in mind, he explained. He did not know where he was and did not know that Ste-Anne was an institution for the insane. Even at this stage of mental disintegration he retained a certain power of systematization of ideas. He said that there were no enemies about him and explained that it would be impossible for any one to harm him because there were attendants to protect every patient. He never thinks of harming himself now, he says, "because we are not allowed to have any arms, not even a knife or a fork," he adds.

The clipping of words is quite marked and the left pupil is larger than the right one. He says that he could make twelve francs an hour by filling engagements as an architect. He has no recollection of his delusions of grandeur or of persecution.

The important features to be looked for in cases of progressive general paralysis are those indicated in the

above cited case. 1,—change of character; 2,—loss of memory; 3,—alteration of the speech, and general mental impairment. When these conditions exist in a subject who commits homicide, general paralysis should be looked for. Inequality of the pupils may or may not be present at an early stage of the disease. When it is present, in connection with the other signs, the diagnosis of the disease can be made affirmatively. The grosser manifestations of this disease,—mental as well as physical, are characteristic of the more advanced stages of the affection,—when its diagnosis is self evident. The jurist should never presume, however, to make a diagnosis of such cases without securing the aid of a well-informed psychiatrist. Far from being easy of recognition, the first stage of general paralysis is often most elusive and most difficult of detection even by the expert psychiatrist. General paralytics seem to be the most frequent victims of the judge's misinterpretation of facts. Medical officers of hospitals for the insane in large cities are particularly familiar with "prison" cases transferred to asylums. These cases are mostly general paralytics, who had been sentenced to imprisonment for petty larceny or for other acts of violence, during the incipient stage of their disease. A large majority of such subjects serve long terms in prisons before their actual conditions are recognized.

The progressively increasing number of these "prison" cases sufficiently indicates the imminent necessity for court justices acquiring some knowledge of the principal forms and morbid manifestations of general paralysis. Such knowledge is of particular value when the general paralytic is brought before the law charged with the commission of homicide.

The cases cited below, although not homicidal, fully illustrate the existing misapplication of the law to subjects afflicted with general paralysis in its incipient stage.

Case XVII.—*General Paralysis.—Sentenced to Imprisonment for Stealing a Pocketbook.—Delusions of Grandeur.—Incoherency.—Dementia.*

Leon P., 36 years of age, clerk, entered the Ste.-Anne Asylum December 4, 1894. His father is in good physical condition. His mother is highly nervous, depressed, has frequent nervous spells and her mind is unbalanced.

It is impossible to learn from the patient whether he has had syphilis. He is married, but has never had any children. He indulged moderately in alcoholic drinks, and was easily affected by them. His wife did not notice any peculiarity in his conduct

until he was arrested for attempted larceny. September, 1892, while riding in an omnibus, next to a woman, he put his hand into her pocket and attempted to steal her pocketbook. He was arrested for this act and sentenced to one year's imprisonment. He spent six months at the Conciergerie and, through good behavior, gained his liberty six months later, March, 1894. His wife then noticed a complete change in his behavior. He cried at the slightest provocation, left out letters in his words, the speech was thick and the lips and tongue presented some tremors. Towards October, 1894, he showed a marked loss of memory, signs of dementia and also had frequent spells of vertigo. About the same time, delusions of grandeur set in. He owned a mansion in the Champs Elysées, he saw his mother, in company with the Virgin Mary, coming down from Heaven. About this time he began to leave out whole words in his phrases and showed marked clipping of words.

When admitted to the asylum, the patient presented pathological altruism, loss of memory, clipping of words and inequality of the pupils. He did not remember having been in a prison and did not know what his own name was. His name was not P., he said, it was Prince. He had a daughter eighteen years of age, he said, and she came from Heaven to visit him. Every five days the Rothschild bank brought him an income of one hundred and twenty-five milliards of francs.

There was not the slightest coherency or probability in his delusional ideas. Rochard, he said, the Director of the Louvre, had been arrested, and the great store now belonged to him, the patient. He was Prince Leon and was eighteen years old. One day he wrote the following letter:

"Minister of the Interior,

"I am detained at Ste. Pélagie without any cause. Telephone to the Director requesting my liberty at once.

"PRINCE LEON DE ROTHSCHILD."

He was considerably excited for a certain time, but became calm about August, 1895. When examined now, he had no recollection of having had any delusions of grandeur. He was no longer of royal blood, although his name was still Prince. He was still wealthy, however. He was director of all the gold, lead and copper mines. He also owned diamond mines in America. Each diamond was the size of a hen's egg. He was decorated by the Legion of Honor and was about to marry a beautiful and wealthy young lady. This lady lived in a town that had trillions of in-

habitants. "This would prevent the Germans from declaring war against the French," he said.

This period of self-satisfaction was followed by one of depression. He declared that everything was in a state of stagnation. All business firms had suspended operations, and the Rothschilds and the Jews had been arrested.

In 1896, the patient showed still more marked signs of dementia. He was apathetic and took no interest in his surroundings. This condition grew worse as time went on.

The case that follows is also a "prison" case. It is more striking in its features as regards the medico-legal point of view because the patient underwent imprisonment while his disease was in full progress, but during a period of remission. From a medico-legal standpoint, the periods of remission are of the utmost importance, particularly if a general paralytic should be charged with the commission of homicide during such a period. The uninitiated are very apt to mistake the apparent mental calm during such a period for a normal mental status. The patient is then held responsible for his deeds, when he is in reality totally irresponsible. Clinicians are familiar with the fact that the chronic and progressive disintegration of the cerebral tissue characteristic of general paralysis may come to a stand-still many times during the course of the affection. The active mental derangement may thus be arrested, for the time being, but the dementia caused by the morbid process is never mended. Therefore, a general paralytic is mentally just as irresponsible during a period of remission as he is during the more active periods of the disease, when mental aberration is obvious at first sight.

While the following case is not a homicidal one, it is so typical of the disease with its periods of remission that I consider it useful to cite it here. The reader may substitute in his own mind the deed of homicide for that committed by the patient and reason out the possible consequences to the culprit.

Case XVIII.—*General Paralysis.—Mental Impairment.—Delusions of Grandeur.—Periods of Remission.—Loss of Memory of Recent Events.*

A. D., 47 years of age, entered the Admission Bureau, Ste.-Anne, Paris, February 14, 1895. His father was a drunkard and died, when 48 years of age, in an accident. The cause of the mother's death is unknown. The patient's childhood was a normal one. He had typhoid fever at the age of 8 years. He served a full term in the army without showing any abnormal symptoms.

He became an expressman and indulged daily in alcoholic beverages. He denies having had syphilis.

In 1885, he had an apoplectiform attack and remained unconscious for nine hours. There were no convulsive movements. He remained in bed three days. The whole body was stiff, but there was no paralysis. Speech was considerably impaired, but cleared up after a lapse of some eight days. On recovery, the patient remembered nothing of the occurrence of the attack. In 1887, he had another attack that was of less intensity than was the first one. The patient became pale, staggered, and would have fallen, had it not been for the assistance of his friends. The attack lasted three hours. In 1889, he had another apoplectiform attack. On this occasion he had pronounced general convulsive movements in the limbs. In 1890, he had one more apoplectiform attack. This attack was preceded by a premonitory feeling of uneasiness. He then became pale, ground his teeth, had nystagmus and generalized clonic convulsions. Unconsciousness and coma then followed. In 1894, he received a severe blow on the hip. This accident was followed by marked mental depression. The patient was apathetic, loath to answer questions addressed to him, and stared into vacancy for hours at a time. His memory was now considerably impaired and he was unable to attend to his own wants. He soon began to improve, however, and in November, 1894, showed a marked improvement in his mental condition. This period of remission did not last long. The patient soon imagined himself wealthy, and offered his superfluous wealth to his friends. He also had some hallucinations and towards December, 1894, his intellect became much impaired. On one occasion, he left his home and went away to Versailles without any cause or reason. He was treated there and brought back to Paris. A few days after this incident, he had several attacks of vertigo. When he recovered, he went to work in Bersy. Finding himself near a wholesale wine business there, he went into the office, walked up to the desk, took a silver goblet that was standing upon it and walked away with it. He was arrested for this and sentenced to two months' imprisonment at Ste. Pélagie. He spent six weeks in prison before it was discovered that he was a general paralytic and transferred to the asylum.

On examination he showed marked morbid optimism. He imagined that he was making large sums of money and that his wife gained incredible wealth through her work as a needle-woman. He had the attitude of a dement, collected rags and bits of paper and filled his pockets with them. Now and then he left out syllables in words, the speech was impaired and clipping of words

was marked. There was inequality of the pupils, the left one being the larger of the two. There was tremor of the tongue, absence of tendon reflexes and Argyll-Robertson signs were marked.

December 22, 1895, the patient again had an apoplectiform attack. The upper limbs convulsed severely and the sub-hyoid region was also involved, so that he had difficulty in breathing. January 2, 1896, he had delusions of persecution. He refused to eat because his food was poisoned. He then became hypochondriacal. His esophagus was clogged up, he said, and no food could go down into his stomach. His memory was nil and he was uncleanly. After a while, however, he began to improve and about August, 1897, he was in pretty good condition. He was then one of the best workers in the ward, his intellect was considerably mended and he remembered most of the incidents connected with his illness. He insisted that he had never had any attacks outside of those that took place in the hospital, but could describe the minutest detail of the recent attacks. He also remembered having had delusions of grandeur during the recent spells. There was slight hesitation in his speech and inequality of the pupils, but he was quiet, had no delusions and rendered valuable services as nurse and general worker among the other patients.

In the preceding cases delusions of grandeur entered largely into the clinical picture of general paralysis. The presence of this symptom is not necessarily constant, however. It is useful to bear in mind that general paralysis may run its full course without presenting any delusions of grandeur. A good many cases of general paralysis without delusions of grandeur have been published. The physician of Ste.-Anne has crystallized the definition of general paralysis by saying that its predominant feature is dementia. It should always be borne in mind that the disease is due to a chronic and progressive interstitial encephalitis. This condition, although characterized by periods of remission, is the essential basis of the disease, causing mental alienation or dementia in the strictest sense of the word. While delusions of grandeur are generally manifested during the course of this disease, dementia is the essential characteristic of the affection.

These few remarks may prove helpful in the analysis of suicides or homicides whose deeds of violence are caused by general paralysis, not characterized by delusions of grandeur.

The case below cited is illustrative of general paralysis without delusions of grandeur. Although the case presented no homicidal tendencies, its description is of interest in so far as it represents a clinical picture of general paralysis without delusions of grandeur.

Case XIX.—*Progressive Paralytic Dementia Without Delusions or Hallucinations.*

J. C. A., coachman, 39 years of age, entered the Ste.-Anne Asylum, September 28, 1895. The patient's history cannot be had. The patient had syphilis and indulged to excess in alcoholic drinks. On admission he was emotional, cried easily, his limbs trembled and were weak. There was pronounced muscular weakness in the hands, particularly in the right one. The patient said that he had had attacks of aphasia and right hemiplegia. There was inequality of the pupils, the left one being the larger of the two. The left pupil did not react to light, while the right one reacted to light normally. The Romberg sign was present. The patellar reflexes were considerably diminished, particularly on the left side. The cutaneous plantar reflexes were abolished on the right side, but were present on the left side. The dynamometer registered 32 for the right hand and 41 for the left hand.

The dementia was markedly pronounced. The patient did not remember the words he said some few minutes previously. There was hesitancy in his speech and he omitted words in his sentences. The slightest mental effort, such as reading a line in a newspaper or making a simple addition, exhausted him. It was impossible for him to make a simple multiplication. His memory was almost nil. He could not remember his own name. He was morbidly optimistic and highly satisfied with himself and his surroundings. He ate well and enjoyed his meals. But there was absolutely no sign of any delusions, hallucinations or ideas of grandeur.

Towards the end of 1896 the patient began to fail. He did not know where he was, or what period of the year it was. His morbid optimism still continued. March, 1897, he became uncleanly for the first time. March 22, he had slight fever, the pulse became rapid and the tongue coated. He sank rapidly. March 27, his temperature rose to 40.6 degrees C. Without having had any convulsions, he died in the evening.

The autopsy showed signs characteristic of general paralysis. The meninges were edematous and 991 grams of fluid escaped. There was submeningeal ecchymosis in the right hemisphere, particularly marked in the occipital lobe and in the posterior part of the temporal lobe. The meninges were thickened and presented diffuse milky spots, particularly over the anterior parts of the temporal, parietal and frontal lobes. The brain tissue was adherent to its membranes, particularly in the middle of the parietal, temporal and frontal lobes. In the left brain there was a hemorrhage in the internal capsule. There were granulations

on the floor of the fourth ventricle. The whole brain was small in appearance and weighed only 1,215 grams. The mesocephalon weighed 210 grams, the right hemisphere weighed 510 grams and the left hemisphere weighed 495 grams.*

General paralysis is greatly on the increase in all civilized countries and the general paralytic is one of the most frequent victims of wrongful imprisonment for the commission of some or other act of violence. Grave errors of legal judgment are apt to be made in cases of general paralytics committing homicide. Considering the progressively increasing number of general paralytics it seems almost a necessity for jurists to familiarize themselves with the essential features of this disease. It is well to bear in mind the following essential traits of this affection: 1. Its pathology is a chronic, progressive, interstitial encephalitis of fatal termination. 2. The highest cerebral centres—that are the latest to develop—are the first to be affected by the disease. 3. Hence, the early affection of the frontal lobes—the center of intellect. 4. Hence, the early manifestation of demential acts expressed by theft, violence, homicide. 5. Loss of memory is one of the earliest manifestations of this affection. Hesitancy in speech, clipping of words and inequality of the pupils—if combined with the preceding disturbances—point towards the presence of general paralysis. 6. The disease is characterized by periods of remission, during which the patient seems to be in normal condition. Every attack, however, leaves a trace of mental impairment. Consequently, a careful analysis should be made of certain homicides with a view to discovering whether general paralysis is not the cause of the violent act. 7. The most difficult cases are those that commit acts of violence during the incipient stage of the disease. It is essential, therefore, to have a correct picture of the entire course of the disease in order to appreciate the subtle difficulty of recognizing the incipient stage. 8. Delusions of grandeur are not necessary symptoms. The disease may run its full course—to its fatal termination—without manifesting any delusions of grandeur.

(To be continued.)

*I am indebted to Prof. Jeffroy for his permission to publish this case.

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THE PATHOLOGY OF ESSENTIAL EPILEPSY.

The pathology of essential epilepsy has for many years been a puzzle to the medical profession. While the clinical features of this disease are well familiar, the microscopic findings in the brains of epileptics have not been recognized as being characteristic. The difficulty experienced in finding an absolute pathological anatomy in this affection has led to its being classed as a functional disease. While the term "functional" has for many years served as a convenient subterfuge in the matter of defining the nature of epilepsy, valuable pathological studies of epilepsy have been published in various centres of learning. These studies prove that a cellular pathology of epilepsy does exist. The nature of the cellular pathology of epilepsy quite corresponds to its causation in a large percentage of cases. Thus, many authors have found that there exists an intimate relation between alcoholism in the parent and epilepsy in the offspring. Magnan and his pupil Legrain, and many others, are some of these authors. Dr. Louise G. Robinovitch, of New York, in a monograph entitled "The Genesis of Epilepsy Clinically Considered," has also demonstrated

that an intimate relationship exists between parental alcoholism and epilepsy in the offspring. It is further shown in this monograph that the relation between alcoholism and epilepsy is not only hereditary in an indefinite sense of the word, but it is also seen from a pathological point of view. Bevan Lewis is quoted as an authority on the microscopic appearances of brains of epileptics. He says that the microscopic appearances of the brains of epileptics are similar to those found in subjects suffering from chronic alcoholism. We quote from the monograph, (page 24), what Bevan Lewis says in regard to the cellular changes in the brains of epileptics: "The change is found in other diseases and especially alcoholic brain disease. The nucleus of the cell is the earliest portion affected, the cell protoplasm being apparently secondarily involved (p. 522). With the atrophy and disappearance of the nucleus we find associated declining functional activity and ultimate degeneration of the cell itself. Displacements, distortion, degeneration, enfeebled vitality, and the absence of the nucleus are constant accompaniments of cerebral disturbances characterized by *loss of inhibitory control*. This idea is not in contradiction to the fact observed in acute anemia, where the suddenly induced absence of nutrition causes, on the mental side, loss of consciousness, and on the physical side, general convulsions (p. 526). A nutritive irritability underlies the morbid activity. Where mental disturbance predominates and actual insanity co-exists with epilepsy, there is a notable affection of a special series of cells, not exclusively seen, however, in this disease, for it likewise prevails in other convulsive affections, such as chronic alcoholism wherein spasmodic discharges of nervous energy are frequent (p. 526). With epilepsy is associated ancestral intemperance. Is it probable that the nuclear and cellular changes bear the imprints of ancestral vice? (p. 527). Disparity between nucleus and protoplasm, and displacement or degeneration of the former, seem to bespeak a convulsive constitution" (p. 528).

From the facts brought to light in the monograph on "The Genesis of Epilepsy," and from the anatomical pathology of epilepsy presented by Bevan Lewis, in his *Text Book on Mental Diseases*, it seems quite certain that epilepsy does not properly belong under the heading of functional diseases. A point of interest in connection with the cerebral pathology of epilepsy as presented by Bevan Lewis is the date of its publication. This author made known the pathological findings in the brains of epileptics some fifteen years ago—in 1889. Considering the early date at which the cerebral pathology of epilepsy was thus presented in rather definite terms, it seems somewhat odd to find the follow-

ing lines in a paper by Dr. M. Allen Starr, read before the *Philadelphia Neurological Society*, November 24, 1903: "In medical text-books from the earliest times epilepsy has been classed as a functional disease, and this view does not seem to have been seriously questioned. Yet a careful review of many facts offered by recent advances in our knowledge of nervous affections seems to me to demonstrate the fallacy of the prevailing opinion and to prove conclusively that epilepsy is usually, if not always, an organic disease." Dr. Starr supports his opinion regarding the organic nature of epilepsy by various statements. One of them is to the effect that there is an essential similarity between the attacks of Jacksonian epilepsy and ordinary epilepsy. The difference between these attacks is merely that of degree. He further says: "The admitted fact that Jacksonian epilepsy is due to organic disease and the close resemblance in many cases (about 23 per cent.) between the attacks of Jacksonian and ordinary epilepsy seem to me to offer an argument that, in these cases at least, the ordinary type is due to actual lesions." It is further stated in part: "The second argument for the organic nature of epilepsy is drawn from a study of cases of maldevelopment of the brain. Of 400 cases of maldevelopment of the brain 156 patients were subject to epilepsy, i. e., 39 per cent. Many of these patients presented such manifest symptoms of mental and physical defects that the epilepsy was admitted to be a secondary and minor matter. But it is not at all uncommon to have a child brought who is supposed to be suffering from epilepsy only, and to find, on obtaining a history or on making a physical examination, that, prior to the development of epilepsy there has been an apoplectic attack which has left a trace of hemiplegia or hemianesthesia or hemianopsia or mental weakness."

Dr. Starr's views concerning the clinical as well as the pathological similarity between epileptiform convulsions caused by some old scar or circumscribed lesion of the brain and the symptom-complex—generally accompanied by epileptic convulsions—known as essential epilepsy,—are interesting. What clinicians will think of Dr. Starr's construction of the similarity in question, is a matter for conjecture. What seems to be worthy of remark, however, is the slowness with which some ideas, even when well crystallized, gain well deserved ground. Thus, Bevan Lewis presented his microscopic studies of brains of epileptics, as herein related, in 1889. His results, showing the existence of a cellular pathology of epilepsy, were preceded and followed by clinical

studies by various authors. The results of these studies are perfectly in accord with those obtained by Bevan Lewis. Since 1889, many authors have published their researches in the anatomical pathology of epilepsy. Considering the existence of these documents it seems curious to find Dr. Starr's declaration at so late a date.

THE FINE APTITUDE OF A CONTEMPORARY. In our issue of 1903, Vol. IV., Nos. 1, 2, 3, we expressed our displeasure at the stand taken by our contemporary, *The American Journal of Insanity*, in regard to the question of the status of the superintendents of our hospitals for the insane. Under the heading of "Moral Crutches," (page 73), we considered this subject with all the sincerity it deserved. We spoke of the crying call for the abolition of "single-headed" management in our leading hospitals for the insane. We addressed our contemporary, *The American Journal of Insanity*, in unequivocal terms. We rebuked it for advocating the continuance of the objectionable "single-headed" management that has for so many years served to exclude scientific progress from our hospitals for the insane. It is most gratifying to learn, therefore, that our efforts have not been fruitless. Indeed, we find that a great change has come over our contemporary. Its sanguine advocacy of the "single-headed" management, its forced attempts to reason itself into embracing its own ideas and its desperate effort to support its "single-headed" scheme by some facts of antique date have given way to its endorsement of "dual-management." We take credit for this transformation. Our efforts have been crowned with success. It has taken some time to achieve it—from January, 1903, to January, 1904, but we do not complain. We simply congratulate ourselves on having usefully expended our energy. In a spirit truly charitable we also congratulate our contemporary—not as loudly as we do ourselves—however. Our contemporary is at last cautiously advocating what we frankly call "dual-management"—not for superintendents of large hospitals for insane in general, but for one superintendent, in one hospital. Seeing this gentle timidity, we refrain from speaking in a tone higher than a whisper, hoping, with all the fondness of a successful instructor, that this timidity will soon wear off and that the dual management will soon be advocated by it without the peculiar limitation of being fit for only one individual superintendent

of one large hospital for the insane. The reader will surely justify our course of gentle dealing when he examines the few lines concerning the subject, in the January issue, 1904, of the *American Journal of Insanity*. Speaking of the new superintendent of the Government Hospital for the insane, at Washington, D. C., it says, in part: "We cannot forbear expressing the hope that a rearrangement of the business methods of the institution may be feasible, so that the superintendent can be relieved of an overwhelming burden of detail business. He should cease to be the disbursing agent and should no longer be required to devote his best energies to non-medical affairs."

Our editorial heart fairly bounds with delight when we think of the fine aptitude of our contemporary. In one short year it has learned to repeat the very words with which we fought its advocacy of the dwarfing of the medical work of our superintendents by forcing on them "duties which have little or no bearing on the science of psychiatry" (see this Journal, page 73-74 of the issue mentioned above). This is *such* a contrast to the ideas of our contemporary in 1903. At that time it spoke in deprecating terms of the advocates of "dual management," saying that they had "reasoned that, under the new dispensation that is coming, the medical superintendent of a hospital for the insane should be shorn of some of his executive functions, using the specious plea that his whole energies should be devoted to the strictly scientific aspects of his work, but forgetting that that much-abused word 'scientific' has a wider range of meaning than the bedside and the laboratory prescribe."

We assure ourselves that we are justified in complimenting ourselves on the radical change we have wrought in our contemporary. We realize that our joy should be moderated by our sense of secret apprehension regarding our contemporary's advocacy of scientific work for one superintendent, of one hospital. Our broadmindedness suggests to us the thought, however, that more likely than not, our belated friend is familiar with the saying that "What is sauce for the goose is sauce for the gander," and that it will reason out for itself that scientific work that is good for one superintendent, in one hospital, is also necessary for all superintendents in all our hospitals for the insane.

Last year we spoke to our contemporary in definite terms of disapproval. Seeing its willingness to abdicate its advocacy of "single-headed" management, however, we are willing to forgive and forget—if the spell of reform is lasting.

THE GOOD WE HAVE ACCOMPLISHED. At the risk of hurting the feelings of some of our colleagues, who have cleverly managed to get themselves appointed as medical officers in various capacities, in the service of the State, we have frankly spoken of the need of certain reforms. In fact, we have gone so far as to say that in certain hospitals for the insane there was an imminent need for improved medical care of the insane. We risked a great deal by our daring, but we have brought about gratifying results: since the beginning of the publication of our views on the medical care of the insane, reforms have been introduced in various hospitals. The Manhattan State Hospital for the Insane is one of the institutions that seems to have derived benefit from our suggestions. A large force of consultant physicians has been appointed to visit the thousands of insane. This innovation is very gratifying, although one feels a bit bewildered at the unusually large list of names of the present Board of Consultant Physicians. We venture the question, however: Do these consultant physicians ever visit the insane? One question suggests another, and the second question that suggests itself is: If single management is as perfect as it is said to be, what need is there for the appointment of so large a Board of Consultant Physicians?

A NEW MEDICAL JOURNAL. The *Journal de Psychologie Normale et Pathologique* is a new publication edited by Drs. Pierre Janet, of the *College de France*, and Georges Dumas, of the *Sorbonne*. The names of both editors are well familiar to the scientific world. The publication contains contributions from leading men of science. The department of abstracts of current literature is well handled and the volume is pleasing in appearance.

We wish the editors much success in their new enterprise.

ENLARGED SCOPE OF THE JOURNAL OF COMPARATIVE NEUROLOGY. The *Journal of Comparative Neurology* has enlarged its scope of work and will hereafter be known as *The Journal of Comparative Neurology and Psychology*. The editorial staff is enriched by the addition of Dr. Robert M. Yerkes' name. He will be the responsible editor of the

department of Animal Behavior. This publication has been most useful to the science to which it is devoted and we hope it will meet with great success.

The publication of this issue has been delayed because of the absence from this country of the editor. We greet our kind and indulgent friends and assure them that the issues of this Journal hereafter will more than make up for the lateness of their appearance in the quality of their contents.

TRANSLATIONS AND ABSTRACTS OF CURRENT LITERATURE.

ON THE ACTION OF THE ROLANDIC CORTEX IN RELATION TO JACKSONIAN EPILEPSY AND VOLITION. — DR. A. B. KINGSFORD: It seems reasonable to assume that discharges, causing convulsions, start from sub-cortical centres, and represent in fact a spontaneous overflow of their continually accumulating energy. That the function of the Rolandic cortex is to control such discharges and to determine their direction when allowing them to issue. The fact that a fit can occasionally be arrested by artificially increasing the intensity of these impulses, as by forcibly resisting the movements of the limb, favors this supposition. Furthermore, it may possibly be that the action of a ligature in arresting Jacksonian fits depends partly on the principle of pressing the muscular nerve-endings as well as on the receipt of painful impressions from the skin, which tends to excite the inhibitory action of the cortex. It is interesting to call to mind that just as the new-born infant is without control over its movements, so is the whole of its Rolandic cortex inexcitable. Not that it is by any means unable to move after birth, or, indeed, for some months before, for its movements are excessive simply from want of control—a control that develops *pari passu* with its pyramidal tracts and the excitability of its Rolandic cortex. Certain features of the anatomy and physiology of the inexcitable Rolandic cortex between the “motor” cortex and the pyramidal tracts are essentially *inhibitory*

in function. Volition in the organism plays a part like that of law in the body politic, which, though strong to restrain, is powerless to drive and is but a dead letter when not backed by a mass of public feelings. An interesting interpretation is given of the following case: "A patient who had been liable to general epileptic fits from birth was seized in adult life with left hemiplegia, due, as was afterwards discovered, to hemorrhage in the central ganglia of the right hemisphere. The epileptic fits continued to occur after the onset of the hemiplegia, but affected only the unparalyzed side." The author interprets these facts by saying that the source of the convulsive discharges was destroyed by the hemorrhage, or, if not wholly destroyed, was so weakened as to more or less restore the balance between its tendency to discharge and that of the presumably weakened Rolandic cortex to restrain such discharges.

From a therapeutic point of view it seems that a fatty diet, so beneficial in convulsive diseases due to lack of control, such as rickets, chorea and hysteria, should prove beneficial in epilepsy (*Journal of Mental Science*, July, 1903).

CONCERNING THE SIGNIFICANCE OF CENTRAL CHROMATOLYSIS WITH DISPLACEMENT OF NUCLEUS IN THE CELLS OF THE CENTRAL NERVOUS SYSTEM OF MAN.—DR. JOHN TURNER: Apparently similar cell defects of the nervous system are not always due to similar causes. The cellular defects found in the brain of imbeciles are due to arrest of development of these cells at an early date. In the case of the imbeciles there are reasons for regarding them as a peculiar form of cell associated with this defective mental state; they represent immature cells that have not fully developed owing to unfavorable environmental conditions, viz., a lack of sensory innervation. In the case of the melancholiacs it seems probable that they are also the result of defective innervation, especially liable to manifest itself at an advanced period of life, when the metabolism is at a low ebb. They represent a degradation and dissolution of the cell whereby it reverts to an immature form. The melancholic condition does not depend on the presence of similar cells. The cell condition is due to the cause that on the psychical side manifests itself in depression. Markedly pronounced cellular changes, in which the nucleus is more or less affected, are due to lesions in the axons. In cases

with an alcoholic history these marked changes are found (*Journal of Mental Science*, July, 1903.)

LOCALIZATION OF THE MOTOR FUNCTIONS OF THE SPINAL CORD —DR. M. LAPINSKI: The separate groups of spinal ganglia send their axis cylinders not to one particular nerve, but to various peripheral nerves. As the latter preside over muscles of given function, every muscle is necessarily in connection with many different groups of spinal cells. There are several spinal cellular groups to every nerve, so that every individual group of spinal nerve cells is connected with different sets of muscular fibres and with muscles of various functions. This anatomical provision is of infinite value in the process of peripheral function in its relation to central volition: This anatomical arrangement provides for economy of space in the transmission of volitional waves, because the latter does not have to reach out every time for one particular group of cells situated in one particular spot; there is also economy of energy and allowance for repair, because the fatigued groups of muscular fibres can remain at rest while other groups of fibres respond to the nervous impulse. Ramon y Cajal has expressed similar views on this subject. This particular anatomical distribution of the motor and trophic spinal centers explains the clinical facts observed in muscular atrophy of spinal origin (Aran-Duchenne type), in which the same muscle presents atrophy in different segments and in different groups of fibres (*Voprossi Nervno-Psychicheskoi Medizini*, Vol. IX, 1903).

MULTIPLE SCLEROSIS WITH DEMENTIA. A CONTRIBUTION TO THE COMBINATION FORM OF MULTIPLE SCLEROSIS AND DEMENTIA PARALYTICA.—

DR. J. RAMSAY HUNT: A clinical picture characterized by a progressive mental enfeeblement, manifesting during its course other symptoms of mental alienation, as mania, melancholia, hallucination, and delusions, and accompanied by the somatic signs of multiple sclerosis, may be caused by the following pathological changes:

An extreme cerebral manifestation of the sclerotic process, of the same nature histologically as the disseminated plaques in the cord.

A combination of the two diseases, general paralysis of the insane and multiple sclerosis, in the same subject.

The diffuse gliosis of the cortex with optic atrophy and degeneration of the posterior columns also arises for consideration in the differential diagnosis (*The American Journal of the Med. Sc.*, December, 1903).

PRIMARY DEGENERATIVE CHANGES OF THE NERVOUS SYSTEM DUE TO SYPHILIS.—DR. KOTELEVSKI: Syphilitic degenerative processes of the nervous system may set in as early as after the third or fourth month following the infection. Cellular changes of the nerves and muscles may also take place after that period. The syphilitic toxins are probably the causes of this early pathological process. Anti-syphilitic treatment does not prevent the early pathological development. Tachycardia in syphilitic subjects is sometimes due to degenerative changes of the vagus nerve. Alcoholism aggravates the severity of the syphilitic process (*Voprossi Nervno-Psychicheskoi Medizini*, December, 1903).

THE RELATION OF GYNECOLOGICAL TO NERVOUS DISEASES.—DR. DOBRONRAVOV: Pathological conditions of the organs of reproduction in woman react on the nervous system through the sympathetic nervous system. Disturbances following pregnancies are additional morbid factors in the causation of mental and nervous disturbances. Bacteriological investigation of recent years shows that many nervous troubles in women are caused by gonorrheal infection (*Voprossi Nervno-Psychicheskoi Medizini*, December, 1903).

THE DEATH RATE OF PHYSICIANS IN RUSSIA DURING THE YEARS 1890-1900.—DR. PIVOVAROV: An elaborate statistical study of the causes of death among physicians is presented. An important fact is brought to light regarding the frequency of suicide among physicians in Russia. Proportionately, physicians commit suicide 19.4 times oftener than do ordinary people. The excessive struggle for existence tends to gradually increase this alarming condition (*Voprossi Nervno-Psychicheskoi Medizini*, December, 1903).

FREQUENCY OF OCCURRENCE OF GRANULAR EPENDYMA IN GENERAL PARALYSIS.—

DR. J. V. BLANCHFORD: A granular condition of the ventricular ependyma has long been recognized as a pathological condition in various cases of insanity; it is common in general paralysis and we are astonished when it is not present. Dr. Bolton thinks that syphilitic infection is the cause of this granular condition in over 59 per cent. of all the cases. The cause and frequency of occurrence of glanular condition of the ependyme in general paralysis is suggestive of the cause of this disease (*Journal of Mental Science*, July, 1903).

THE MENTAL AND MORAL EFFECTS OF THE SOUTH AFRICAN WAR, 1899-1902, ON THE BRITISH PEOPLE.—

DR. R. S. STEWART: The nation as a whole had its criminal propensities checked. There was a lessened disposition towards all forms of self-indulgence, a heightening of the respect for the lives and property of others and a lessened disposition to shirk the troubles and responsibilities of life. The nation's mental stability was improved and its power of self-control increased. When war comes to an end, the reaction after continued inhibition is often apt to be of a serious nature (*Journal of Mental Science*, July, 1903).

THE RELATION OF MENTAL SYMPTOMS TO BODILY DISEASE, WITH SPECIAL REFERENCE TO THEIR TREATMENT OUTSIDE LUNATIC ASYLUMS.—

DR. NATHAN RAW: Many patients suffering from temporary mental disturbance due to some physical troubles are wrongfully assigned to asylums for treatment. They should be treated in general hospitals and be spared the stigma of having been detained in an asylum for the insane (*Journal of Mental Science*, January, 1904).

MONGOLIAN IMBECILITY. —

DR. C. H. FENNEL: The prognosis in the variety of imbecility known as Mongolian is unfavorable as regards the possibilities of educating the patient (*Journal of Mental Science*, January, 1904).

THE RELATION OF PHYSICAL DEFECTS TO MENTAL DEVELOPMENT.—

DR. GEORGE STOCKTON: Physical stigmata of degeneracy are frequently found among the

insane and the criminal subjects. Juvenile criminals in reformatories present a characteristic appearance due to lack of physical and mental development. They are usually puny and sickly, often deformed, liable to epilepsy, stupid and deficient in vital energies. Some professional people wrongfully discredit the significance of physical degeneracy among the mentally defective. The movement in favor of hygienic and educational measures for the criminal defective is commendable (*Medical Record*, March 12, 1904).

THE EFFECT OF RADIUM ON THE EXCITABILITY OF THE CEREBRAL CORTEX.—DR. OBICI: During the first few minutes of exposure to radio-activity there is hyperemia of the cerebral cortex. The nutritive status of the cerebral cells is heightened and their responsiveness is increased. With the increase of the hyperemia punctiform hemorrhages set in. These are followed by mental depression and paralysis. The marked changes of cortical irritability are due to vaso-motor disturbances. This is easily verified by withdrawing the radio-activity. The vaso-motor disturbances disappear if the animal is allowed to rest a few minutes (*Rivista di patologia nervosa e mentale*, February, 1904).

FOLIE A DOUBLE FORME.—DR. BIAUTE: This form of insanity is not common to all classes of society. The higher classes are more apt to present this form of disease than are the lower classes. The members of the higher class of society are more markedly predisposed hereditarily. The physician generally sees these patients when they are suffering from maniacal excitation. The period of melancholic depression is generally spent at home. The family of such patients generally say of them that when in their normal condition they have two sides to their natures. Affrontery and timidity are seen at distinct periods of time (*Gazette Medicale de Nantes*, 1903).

ACTION OF RADIUM ON HEMOGLOBIN, FERMENTS AND THE RED BLOOD CORPUSCLES.—V. HENRI AND A. MAYER: The oxyhemoglobin of dogs and frogs is rapidly reduced and precipitated under the influence of radium. When exposed to radium, various ferments, like emulsin and trypsin, progressively lose their activity and become inert if the exposure lasts several days. The red blood corpuscles lose their activity from exposure to radium (*Progres Médical*, March 12, 1904).

KORSAKOFF'S DISEASE AND GENERAL PARALYSIS.

—DR. DEROUBAIX publishes a case of this disease, the existence of which has been contested by some physicians. The author proves by the history of his patient that Korsakoff's disease is characteristic of itself and should not be confounded with Chaslin's syndrome known as mental confusion. There is possibly some relation between Korsakoff's disease and paralytic dementia, as claimed by Jolly, Meyer and Raecke (*La Belgique Médicale*, No. 49, 1903).

AN ADDITIONAL CASE OF CONJUGAL GENERAL PARALYSIS.—DR. CULLERRE: The husband contracted syphilis twenty years before he died of general paralysis, while the wife probably contracted the disease soon after marriage. Both, the husband and wife may have been especially predisposed to general paralysis. Yet, it is difficult to give a positive explanation of conjugal general paralysis in this case (*Archives de Neurologie*, February, 1904.)

ONE OVERLOOKED FACTOR IN THE INCREASE OF INSANITY.—It is remarked editorially in *American Medicine*, February 29, 1904, that eye strain is a marked factor in the causation of insanity. This factor is particularly found among school children, who are compelled to expose their eyes to violent acts of accommodation many hours during the day.

CONDITION OF THE RETINA IN GENERAL PARALYSIS.—DRS. P. KERAVAL AND A. DANJEAN: In round figures, the retina is found to be normal in 38 per cent. of the cases of general paralytics and in 62 per cent. of the cases the retinal lesions are of paralytic origin (*Archives de Neurologie*, March, 1904).

BOOK REVIEWS.

L'OMICIDIO NELL'ANTROPOLOGIA CRIMINALE (OMICIDA NATO E OMICIDA PAZZO). CON ATLANTE ANTROPOLOGICO-STATISTICO. PROF. ENRICO FERRI. Published by Fratelli Bocca, Turin, Italy. This volume, of 739 pages, with its accompanying anthropologic-statistical atlas of 333 pages, constitutes a very encyclopedia on homicide from the point of view of criminal anthropology. The author devoted to these volumes some twelve years of diligent work and research. The thoroughness with which the work is executed is characteristic of this great orator, jurist and scientist. Without the enthusiasm and sincerity for which the author is famed he could never have accomplished the great work he has embodied in these volumes. The manner in which the subject of homicide is treated here is so broad that it is almost impossible to present an adequate analysis of it. A gifted linguist, an erudite jurist and scientist, Professor Enrico Ferri has dipped into every available source, written in various languages, in which homicide is analyzed. The results of this labor are presented in this work only as a side issue. The main bulk of the volumes are made up of personal observations and study of the homicide as he figures in prison life, in the criminal circle and in his private dealings in regard to friends, wife or offspring. The vast class of homicides is naturally divided into the born homicide and the insane homicide. The introductory chapter treats of the natural steps in the evolution of homicide. In the struggle for existence, for food and for conveniences, destruction of a fellow being is common among animals. The nature of the act varies more or less according to the organic, psychic and social development of the animal species, but there is always an identity between the fundamental causes, manifestations and effects. "Homicide Among the Savages," is one of the many instructive chapters. The ever present struggle for existence is at the root of many a deadly act. The scarcity of food is one of the leading causes of homicide among the savages. The practice of abortion is universal among the women of some tribes. The superstitious fear of having twin children is really an outgrowth of the fear of having a large family. Some Oriental Africans kill their twin children and chase the unlucky mother from the house. The festive orgies held by some savages on the

occasion of infanticide have been described by Letourneau and Lubbock. A mother who had wrested her child from the hands of violent death was ostracised and stigmatized with the dishonorable title of a "child-bearer." Killing of the old and cannibalism among savages are too well known facts to need any comment. The motives that prompt the commission of homicide among the savages differ very little from those found among animals. Evolution of humanity is, therefore, quite slow. The act of killing a fellow-being is deeply rooted in the organism both of man and animals. The act is a natural effect of physio-psychological, physical and social causes. This last demonstration is followed by a consideration of the organic constitution of the homicide. Instructive studies and tabulated results of organic examinations are cited and anthropometric data of 1711 subjects, normal and insane, are presented. The conclusions drawn from these studies are as follows: 1. Physical stigmata are not characteristic of all homicides. Nevertheless, these stigmata are so often found among the criminal homicides that one is forced to admit that this class of people are of an inferior anthropological variety. 2. The physical degeneracy is in itself not a pathogenetic cause of homicide. There seems to exist an intimate relation, however, between this physical degeneracy and psychic perversion. 3. This psycho-pathological condition seems to be the main point explaining the hereditary transmission of criminality. The validity of the theory of hereditary transmission is sustained by studies in criminal anthropology and psychiatry. While criminality may in some cases appear to be due to lack of education and bad surroundings, it should not be denied that a special physical and organic constitution is the fundamental element of the trouble. 4. It is most important to recognize the physical basis of invalid morality and homicide. This recognition will bring us nearer to the realization that the imprisoned homicide should be studied in a manner similar to that in which the ordinary sick are studied in hospitals. This new mode of study would greatly contribute to a better understanding and evolution of human morality.

The second part of the work is devoted to the study of the psychic constitution of the homicide. This study presents a masterful dissection of the psychic life of the homicide. A minute picture is given here of the man who "acts according to his feelings, not according to his reasoning." The picture of the moral insensibility of the homicide is so forcefully presented, so true, albeit startling, that the reader unconsciously bows to the genius of the distinguished author of this work. The criminal homicide, we are told, is indifferent to suffering of living beings

in general. Some homicides experience a particular sense of joy while inflicting death on human beings. Thus, one homicide said: "Oh, you do not know the great pleasure I experience when plunging a knife into a human breast." The moral insensibility of the homicide is presented in its various phases. His physical insensibility is often astonishing in degree and accounts for his fearlessness with which he mounts the scaffold to be hanged. An interesting chapter is devoted to the study of the relation of religious sentiment to homicide. The author proves that there are more religious subjects among the homicides than there are non-believers. A large number of homicides choose religious pictures for their tatooing. The histories of criminal homicides show that many of them were profoundly religious both at large and within the prison walls. According to Marro's statistics, 57 per cent. of normal people are church-goers. Among the criminals the proportion of subjects regularly attending church is 45 per cent. There are more devout subjects among the criminal homicides than there are among normal people. The sayings of some criminal homicides are quite characteristic of their religious sentiments. A youth who had killed his father said: "It is certain that the Virgin raised my hand to kill my father. My first blow knocked him senseless." On the eve of committing a crime, one subject exclaimed: "I have attended to every detail. May God and the Saint Virgin do the rest." Another criminal said: "The act of robbing does not depend on me. It depends on God who has given me the will to rob." All these characteristics show that criminality is far deeper rooted than we are willing to admit and that education and religious instruction do not materially alter a criminal nature.

The criminal homicide is not always devoid of altruistic sentiments. Some of these subjects have been known to show most touching and astonishing devotion to their wives and children. Some of these subjects, guilty of the most atrocious crimes, have exhibited to an astonishing degree sentiments of charity, kindness, justice and generosity. Intellectually the criminal homicide is notoriously improvident. He acts imprudently before, during and after the commission of the crime, so that he can almost always be traced and trapped. A chapter on the fundamental psychological character of the born homicides concludes the elaborate study of this class of criminals.

The latter part of the work is devoted to the study of the insane homicide. The consideration of this subject is extensive. Although it is only a fraction of the entire work, it would easily make up a text-book in itself. Although the subject is intimately

related to clinical psychiatry, the psychiatrist will profit greatly by reading these pages. The clinician's point of view will be considerably broadened by the reading of these studies, because they are full of breadth and are based on the analysis of all possible sources of the genesis of this variety of homicide.

The statistico-anthropological atlas is the complement to the major work. The atlas treats of the following subjects: 1. Anthropometric data of the 1711 subjects studied in the main work. The cases were measured personally by the author. The subjects are grouped according to place of birth, reaction and mental alienation. 2. Biological and psychological description of every individual complete the anthropometrical data. 3. Graphic and photographic representation of the most characteristic data relating to typical criminals. Statistics are given of the proportionate percentage of the various forms of homicide in the principal parts of Europe.

This work on homicide is colossal, far surpassing anything that has ever been written on the subject. An English translation of these volumes would put most valuable information at the disposal of the English speaking world.

The author of these volumes is to be sincerely congratulated on this product of his useful genius.

SUBJECTIVE SENSATIONS OF SIGHT AND SOUND. ABIOTROPHY AND OTHER LECTURES. SIR WILLIAM R. GOWERS, M. D., F. R. C. P., F. R. S., *Hon. Fellow R. Coll. Phys., Ireland; Member of the Soc. Medecins Russes of St. Petersburg and of the Royal Soc. of Science of Upsala, etc.* P. Blakiston's Son and Company, Philadelphia, 1904. This volume of 250 pages, contains a collection of interesting lectures on various subjects as follows: Subjective visual sensations, subjective sensation of sound, abiotrophy diseases from defect of life, myopathy and a distal form, metallic poisoning, syphilitic diseases of the nervous system, inevitable failure, syringal hemorrhage into the spinal cord, myasthenia and ophthalmoplegia and the use of drugs. In this, as in his other works, Gowers sustains his reputation as an excellent writer thoroughly familiar with the subject he considers. His usual broad views on scientific subjects characterize this work. The chapters on subjective sensations of sight and sound are most instructive and interesting. Sensations of sight are considered under the following headings: Physiological considerations, visual sensations in migraine, special features of migrainous spectra, unilateral spectra, the progressive spectrum,

radial spectra, central spectra, peri-central spectra, visual sensations in epilepsy, sight and movement. Sensations of sound are treated of under the headings as follows: Apparent locality of the sound, characters of labyrinth sounds, relation of tinnitus and vertigo, sounds of central origin, central co-operation in labyrinthine sounds, pathology of tinnitus and its treatment. Besides the interesting manner in which these two chapters are presented, they are valuable on account of the many suggestive ideas for research therein contained. The whole volume is a valuable addition to a medical library.

A PRACTICAL TREATISE ON NERVOUS DISEASES FOR THE MEDICAL STUDENT AND GENERAL PRACTITIONER.

F. SAVARY PEARCE, M. D., *Professor of nervous and mental diseases in the Medico-Chirurgical College of Philadelphia; Fellow of the College of Physicians of Philadelphia; Neurologist to the Philadelphia and Howard Hospitals; Member of the American Medico-Psychological Association; Chairman of section on nervous and mental diseases of the American Medical Association.* D. Appleton and Company, 1904, New York and London. This text-book is shaped especially for the use of the medical student. The introductory chapter is devoted to the consideration of the anatomy, physiology and chemistry of the nervous system. The colored illustrations of the anatomy-functional areas of this system will be particularly appreciated by the student. General pathology and methods of clinical examinations are presented in commendable form and suitable illustrations are given wherever possible. The organic and functional diseases of the nervous system are handled in a concise manner. The merit of this work lies in the fact that it exactly answers the purpose for which it is intended. It is concise, but not dwarfed. It deals with all the classic, as well as with the newer forms of nervous diseases, without burdening the reader with excessive details and theories. The illustrations are happily chosen and the whole work will be much appreciated by the student and general practitioner. The volume consists of 401 pages.

RECHERCHES CLINIQUES ET THERAPEUTIQUES SUR L'EPILEPSIE, L'HYSTERIE ET L'IDIOTIE. COMPTE-RENDU DU SERVICE DES ENFANTS IDIOTS, EPILEPTIQUES ET ARRIERES DE BICETRE, 1901.—BOURNEVILLE and MM. AMBARD, BOYER (J.), CROUZON, MOREL (L.), PAUL BONCOUR, PHILIPPE

and OBERHUR. Vol. XXII., with 14 figures and 16 plates. Felix Alcan, 1902. This volume is well familiar to the profession. The valuable scientific papers presented yearly in this report are written by distinguished psychiatrists, neurologists and pathologists. Besides the studies of idiocy, epilepsy and abnormal children, the volume contains some interesting reports relating to administrative subjects of the Asylum Bicêtre. These reports are of particular interest to superintendents of hospitals for insane and for abnormal children. Thanks to the efforts of Dr. Bourneville, the education of the idiot and imbecile children has reached a high standard. Not only do these defective subjects learn here how to do ordinary useful work, but some of them also learn to do skilled work, such as printing and engraving. The gymnastic and dancing school is an important element in the education of the idiot and imbecile children. The report shows that the excellent work is carried on in Bicêtre without any ostentation but with highly gratifying results.

L. N. TOLSTOI. STUDIO PSICOLOGICO. Con Ritrato. DR. C. E. MARIANI, Redattore-Capo dell' "*Archivio di Psichiatria*". Fratelli Bocca, 1903. Prof. Lombroso says in his preface to this monograph that Tolstoi represents the maximum expression of modern thought and of the fusion of the arts with morality. It is certain, he adds, that he is the greatest, the most courageous, useful and most disinterested genius of our age. "If you can bring to light some neurotic traces in this great man, on the ground of his personal writings, you shall have added proof to the theory that genius and neurosis are kin, as I have tried to demonstrate it in my work on genius." Dr. Mariani states that there is ample evidence in Tolstoi's *Memoires* and in his other writings that Tolstoi was subject to neuroses proper to genius. Tolstoi's father, we are told, was a dissolute and dissipated man. His mother, on the contrary, was an "angelic" being, but superstitious and nervous. She died of some pulmonary affection. The maternal grand-mother was hysterical. All these infirmities, Dr. Mariani says, are enumerated not for the purpose of detracting from the great Russian's reputation as the leading humanitarian of the XIXth century. The study simply confirms the claim made by Lombroso as regards the neurotic infirmities of genius.

DIE HYPOCHONDRIE. BY PROF. DR. R. WOLLENBERG, Tuebingen. Published by Alfred Hoelder, Vienna, 1904. The first chapter is devoted to a historical consideration of hypo-

chondria. Opinions of the classic authors are given in regard to the relation of hypochondria to neurasthenia and hysteria. The general symptomatology of the disease is well presented and clinical cases are cited as illustrations to the description. The various forms of the affection are classed as constitutional and accidental hypochondria. Speaking of the pathogenesis, the author says that in the majority of cases morbid heredity with a special predisposition to hypochondria is the underlying cause. This heredity is not apparent in all cases, however. There is no special treatment for this form of mental disease. The physician should personally make every endeavor to gain the patient's confidence and thus help him come out of his condition of morbid introspection. The monograph is very well presented and the clinical illustrations are commendable.

INDEX PHILOSOPHIQUE. PHILOSOPHIE ET SCIENCE ANNEXES. FIRST YEAR, 1902. N. VASCHIDE AND VON BUSCHAN. C. Naud, Publishers, Paris, 1903. This index is a most valuable publication. While not as extensive in scope as is the *Index Medicus*, the new publication contains 345 pages. The volume contains titles of philosophical and scientific works published in 1902. The authors' names and their respective works are arranged alphabetically in conjunction, then the authors' names are given in conjunction with the various pages on which their names appear in the different sections of the Index, finally, there is a general index of subjects appearing on the various pages of the volume.

The distinguished authors, who have undertaken, in addition to their scientific labors, to edit this valuable and useful Index deserve the greatest credit for the services they are rendering to the scientific profession at large.

DEUXIEME CONGRES INTERNATIONAL DE L'HYPNOTISME EXPERIMENTAL ET THERAPEUTIQUE, Paris, August 12-18, 1900. Published by Vigot Frères, Paris, 1902. This volume is edited by Drs. Bérillon and Farez. It contains various papers relating to the clinical, therapeutic and pedagogic application of hypnotism. Many distinguished scientists, such as professor Raymond, Dr. Jules Voisin, and others, are among the contributors of the papers herein contained. The report contains 320 pages and is most instructive in its contents.

BOOKS AND PAMPHLETS RECEIVED.

Dr. E. Régis, LES DELIRANTS DES HOPITAUX; leur assistance, leur utilité au point de vue de l'enseignement. C. Naud, Paris, 1903.

THE JOHNS HOPKINS HOSPITAL REPORTS, Nos. 1-9, Vol. XI., 1903.

Dr. Nicola Majano, SULLA PATOGENESI DEL DUBBIO NELLE PSICASTENIE.

Dr. Nicola Majano, UN IMBECILLE LADRO, Tipografia farnesiana, Roma, 1903.

Drs. F. Giannuli and N. Majano, UN DEGENERATO ANTROPOIDE.

Dr. Nicola Majano, UEBER URSPRUNG UND VERLAUF DES NERVUS OCULOMOTORIUS IM MITTELHIRN. S. Karger, NW. 6, Berlin.

Dr. Claparède, HEMIATAXIE POST-HEMIPLEGIQUE ET COORDINATION SOUS-CORTICALE.

Dr. Stewart Paton, THE ASYLUM, THE HOSPITAL FOR THE INSANE AND THE TEACHING OF PSYCHIATRY.

Dr. Stewart Paton, ACUTE PARESIS WITH REPORT OF A CASE The clinical history and pathological findings.

Dr. Stewart Paton, STUDIES IN THE MANIC-DEPRESSIVE INSANITY, with report of autopsies in two cases.

Prof. A. Gilbert and S. Posternak, LA MEDICATION PHOSPHOREE, Monographie clinique, No. 36, Masson, C-ie, Paris, 1903.

Dr. E. Harrison Griffith, THE DIAGNOSIS AND TREATMENT OF HEREDITARY SYPHILIS.

Prof. Sergio Sergi, ROTAZIONE INTORNO ALL'ASSE LONGITUDINALE NEGLI ANIMALI con lesione unilaterale del cervelletto.

Dr. Marco Levi Bianchini, NEL CENTRO DELL' AFRICA. Perizia medico-legale in un caso di supposito avvelenamento.

Dr. William James Morton, TREATMENT OF CANCER BY THE X-RAY, with remarks on the use of radium.

Dr. William James Morton, SOME CASES TREATED BY THE X-RAY.

Dr. Fred C. Valentine, THE BOY'S VENEREAL PERIL.

Dr. W. Freudenthal, IS ATROPHIC RHINITIS ALWAYS AUTOCHTHONOUS? The necessity of establishing an exact diagnosis in order to determine the treatment.

Dr. Thomas E. Satterthwaite, NAUHEIM METHOD IN CHRONIC HEART DISEASE WITH AMERICAN ADAPTATIONS.

Dr. Fred C. Valentine, AID TO CYSTOSCOPIC PRACTICE.

Dr. W. Freudenthal, ADENOIDS.

Dr. Francis J. Quinlan, MALIGNANT TUMORS OF THE NASO-PHARYNX.

Dr. E. F. Brush, APHTHAE AND HERPES contracted by children drinking milk from cows suffering from foot and mouth disease.

Dr. S. Weir Mitchell, THE RELATION OF NEURALGIC HEADACHE TO STORMS.

Dr. Sinclair Tousey, RADIOGRAPHY IN ENTERITIS AND COLITIS.

Dr. T. D. Crothers, HYOSCINE IN THE TREATMENT OF MORPHINISM.

Dr. R. O. Kevin, THE LOCAL TREATMENT OF ACUTE AND CHRONIC GONORRHOEA.

Dr. W. T. English, TRAUMATIC PNEUMONIA.

Dr. W. T. English, THE NEGRO PROBLEM FROM THE PHYSICIAN'S POINT OF VIEW.

Dr. V. A. Kopossov, A FIVE YEARLY REPORT OF THE KARAMZINSK COLONY FOR THE INSANE.

Dr. B. D. Evans, COURT TESTIMONY OF MEDICAL EXPERTS IN MENTAL DISEASES.

Dr. R. A. Reis, LA SCARICA INVISIBILE della scritture ad inchiostro e le scritture colla saliva.

Dr. John V. Shoemaker, A CLINICAL STUDY OF ORGANIC IRON.

ANNUAL REPORT of the Board of Regents of the Smithsonian Institution, showing the operations, expenditures, and conditions of the institution for the year ending June 30, 1902.

ANNUAL REPORT of the Supervising Surgeon-General of the Marine-Hospital service of the United States, for the fiscal years 1900 and 1901.

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ANNUAL REPORT of the Lunatic Asylum, for the year ended 31st March, 1903, Jamaica.

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Dr. Paul Garnier, LES HYSTERIQUES ACCUSATEURS. Baillière et fils, Paris, 1903.



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